Austin Aquatic Master Plan

FINAL DRAFT

City of Austin, Texas

July 21, 2017

BRANDSTETTER CARROLL INC
ARCHITECTS . ENGINEERS . PLANNERS

ACKNOWLEDGMENTS

Aquatic Master Plan, City of Austin, Texas

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EXECUTIVE SUMMARY

INTRODUCTION

The Austin Parks and Recreation Department's (PARD) Aquatic Division is charged with the daunting task of managing 51 public aquatic facilities and providing quality programs and services to the residents of the City of Austin. These facilities include seven (7) municipal pools, 28 neighborhood pools, three (3) wading pools, 11 splash pads, one (1) rental facility at Commons Ford Ranch, and Barton Springs Pool. However, four city pools were closed for the season due to leaking and aging conditions in 2017.

An inventory of an aging aquatic infrastructure, rapid population growth, demographic changes, funding considerations, and regulatory requirements are not only challenges faced by the City of Austin's Aquatic Management Team but have served as the catalyst for examination and planning for the future of the City's aquatic facilities.

MASTER PLAN PURPOSE

The purpose of this plan is to recognize facility management opportunities system-wide and to provide recommendations on the current, expanded or reduced aquatic facility system that would be both more equitable and more sustainable into the future.

The recently completed Aquatic Facilities Needs Assessment included the inspection, evaluation, and recommendation for renovation, redevelopment and/or replacement with new facilities on existing or alternative sites. This plan, which builds upon and serves as a continuation of the Needs Assessment, is intended to provide PARD with a comprehensive Master Plan that evaluates existing management opportunities, develops a sustainable management model, and provides recommendations for developing an equitable, sustainable aquatic system that addresses the present and future needs of the City. Additionally, this master plan must be treated as a living document that needs to be reviewed and revised every 5 years (minimum) or as needed to respond to changing demographics and urban growth patterns of the City of Austin.

PUBLIC ENGAGEMENT – 3 PHASES

The public engagement for this Master Plan consisted of a review of the input gathered during the Needs Assessment and the SWIM512 campaign held in the summer of 2015 and was followed by public workshops held during three phases of the Master Plan process.

Needs Assessment Input

The public input process began during the Aquatic Facilities Needs Assessment in 2014, which consisted of 11 regional meetings, a statistically valid, random sample survey of 500 residents, over 2,500 surveys collected at the pools, and a Television Town Hall. The process engaged over 13,000 residents.

Recurring themes included:

- Keep the pools open and affordable
- Increase the hours and swim season length
- Improve restrooms, bathhouses, and seating areas
- Improve cleanliness of pools, bathhouses, restrooms, etc.
- Provide shade

The most important actions the City could take to improve pools (from the surveys):

- Increase the swim season (67%)
- Provide additional shade (63%)
- Upgrade pool and bathhouses (33%)
- Add more lap lanes (28%)
- Install zero depth entry (28%)
- Provide more seating areas (23%)

SWIM 512: Public Engagement Synopsis

Between the Needs Assessment and this Master Plan, the City completed the SWIM512 campaign to take advantage of users at the pools in the summer of 2015, utilizing on-site community conversations at three (3) Municipal Pools and eight (8) Neighborhood Pools, plus Neighborhood Talks at neighborhood association and organization meetings and Community Focus Groups at recreation centers.

The results of this process include:

- Generally strong support for larger family aquatic centers and the development of indoor, year-round facilities
- A large percentage of the survey respondents are willing to pay a fee to use pools
- Preferred features, among the children polled through the summer camp and after school program, included tall slides, climbing walls, lazy rivers, indoor pools, diving boards, and shade
- Strong need for pools in some underserved neighborhoods, especially where geographic barriers such as major highways limit access to pools (ex., Colony Park)

Master Plan Engagement

As part of the Master Plan process, two rounds of public meetings were conducted in 2016. In addition, the City and Consultants participated in neighborhood association meetings to promote the public workshops and the survey. Follow-up workshops were held in 2017.

Survey Results

What to Do with Pools that are Beyond Repair:

- Repairing pools that are in good condition (41%)
- Closing the pool and replacing it with a family friendly option (30%)

Priorities

- Closing pools that are beyond repair (34%)
- Making necessary renovations to remaining pools (34%)
- Closing pools that are beyond repair and add a series of larger swimming pools to serve all areas of the city (32%)

Criteria for Action

- Current annual visits to the pool (51%)
- Proximity to other pools – distance to other pools (47%)
- Population size within a mile of the pool (47%)
- Costs to upgrade (44%)

Potential Distribution

Three potential systems of distribution were presented and discussed with participants.

- Neighborhood Pool Focused, which included primarily smaller neighborhood pools and would require a much larger quantity to serve the City
- Regional/Community Centered, which included a smaller number of more regional and community pools of a larger size
- Combination Concept, which included all pool types in a system with fewer pools than existing but more evenly distributed

The Combination Concept was generally accepted as the most realistic to serve Austin.

CURRENT STATE OF AUSTIN AQUATICS

A review of the current state of Austin aquatics must be part of the effort to determine the improvements necessary to yield a more sustainable and equitable aquatic system to serve Austin residents and visitors.

Aquatic Facilities Needs Assessment Summary

Most of Austin's aquatic facilities were built between 1927 and 1990 with an average age of over 50 years old. The typical useful life span of a standard pool is 25-30 years. As a result, many pools are physically and functionally obsolete, lacking popular features, such as zero-depth entry, interactive play areas, slides, program space, and spray features. Additionally, many do not meet current health or accessibility guidelines or codes.

Many areas of the City are not served or are underserved, and many have overlapping service areas. Many of the pools in Austin are located close to other pools, and many areas have no pools nearby. For example, few pools are located in the northern and southern portions of the city, while in the central part of the city, most notably east of I-35, several pools are located within a mile of another pool.

Attendance and Budget

The overall average annual attendance of the pools (not including Barton Springs) over the 2002-2015 period was 743,905, with over 298,000 at the seven Municipal pools, nearly 434,000 at the 25 Neighborhood Pools, and just under 12,000 at the Wading Pools.

Austin operates the pools at an annual average cost of approximately $6.4 million, not including budget for Barton Springs. Costs (overall and by participant) vary greatly by pool. All revenues go to the City's

General Fund.

Of the current budget, only $2.1 million is used to cover maintenance, most of which is allocated for utilities. The maintenance budget has been consistently exceeded, resulting in reductions to other PARD programs/improvements.

Over the past ten-years, the City of Austin has expended $29.2 million for capital projects related to the Aquatic system or approximately $3 million per year.

AQUATIC VISION

The Aquatic Division mission and vision was developed through the extensive public engagement in the Needs Assessment, SWIM512, and Master Plan processes as well as input from the Aquatic Division Staff, Master Plan Team consisting of the Aquatic Advisory Board, Technical Advisory Group, and District Representatives Group.

Aquatic Division Vision

(What we strive to be)

Lead the Aquatic Industry with the highest quality aquatic standards for safety, programming, facilities, and staffing

Aquatic Division Mission

(Our Fundamental Purpose)

Provide a sustainable and equitably distributed system of outstanding aquatic facilities and programs

Goals & Objectives

Goal 1: Financially Sustainable System

Develop a sustainable management model for existing facilities and develop a city-wide sustainable facility model that addresses the present and future needs of the City.

Objectives:

1. Provide an equitable distribution of aquatic facilities throughout the City of Austin, including but not limited to:
   - Support research and development in areas identified as deficient in aquatic facilities
   - Implement the recommendations of this Plan regarding the short- and long-term improvements, upgrades, consolidations, and decommissioning
   - Utilize current demographic analysis as a key factor in the process to determine locations of upgraded, expanded, new, or decommissioned facilities
2. Identify a variety of facility types to meet the diverse needs of residents, such as:
   - Provide aquatic facilities to offer year-round programming (see Goal 3)
   - Provide a balance of "neighborhood-based" and value driven aquatic "community" (multi-neighborhood) facilities that offer family and fitness oriented aquatic opportunities
3. Establish a system of aquatic facilities and programs at a higher level of management and economical sustainability over the long-term
4. Establish an organizational and support structure to maintain a more sustainable system
5. Establish closer relationships with the permitting agencies and departments to streamline the development process

Goal 2: Diverse Facilities

Provide a modern and safe aquatic system throughout the City.

Objectives:

1. Reduce pool closure occurrences due to maintenance issues as a result of the age of facilities, such as:
   - Bring all facilities, including associated buildings, parking, decks, etc. up to current standards and codes, such as ADA, health, safety and pool codes
2. Provide suitable aquatic facility infrastructure for use by public or private events, including:
   - Bathhouse facilities
   - Qualifying pool length(s)
   - Ample deck space
   - Mobility access to facility
   - Covered/shaded gathering spaces
   - Climate controlled staff areas
   - Upgraded restrooms and pool houses
3. Modernize existing facilities and develop new facilities to include features identified most in the community engagement process, such as, but not limited to:
   - Improved restrooms/pool houses

- Shade
- Wi-Fi
- Slides
- Shallow water play areas
- Lap lanes
- Climbing walls
- Diving boards

Goal 3: Year-Round Facilities

Establish and maintain year-round facilities in key demographic service areas that provide maximum equitable access to aquatic environments and opportunities

Objectives:

1. Prepare a feasibility study to determine the scope, size, programming, and financial impact of indoor facility(s)
2. Provide year-round, heated outdoor recreation/ lap pool facilities. Example:
   - Identify locations which will best support year-round outdoor programs, lessons, and lifeguard training
3. Develop indoor aquatic facilities to:
   - Enhance lifeguard training opportunities
   - Cultivate partnerships with educational organizations, such as AISD and other school districts serving Austin
   - Support local competitive swimming, water polo, synchronized swimming, diving, etc.
   - Provide year-round programming (all ages)
   - Expand drowning prevention and other water safety programs
   - Reduce and limit weather-related impacts on aquatic programs

Goal 4: Progressive, Responsive Programming

Provide enhanced programming that responds to community input and that appeals to all user groups

Objectives:

1. Provide an equitable and enhanced distribution of aquatic programs throughout the City
2. Deliver enhanced aquatic programming services, such as:
   - Expand programs related to water safety, swim lessons, fitness, and leisure recreation.
   - Provide new and trending programs as desired by the community (examples: scuba, kayaking, paddle boarding, yoga, etc.)
3. Expand year-round programming at an indoor facility
4. Increase swim event opportunities for aquatic events and competitions
5. Maintain and expand community outreach relating to Aquatic Programs offered city-wide
6. Develop an annual survey to assist in determining what future programming may be desired

Goal 5: Enhanced Operational Support

Provide aquatic focused maintenance facilities and develop operational procedures to support a sustainable aquatic system

Objectives:

1. Standardize mechanical components and equipment for renovated and proposed facilities throughout the system to achieve ease of maintenance and operation procedures of aquatic facilities and to reduce cost for inventory, such as:
   - Create an inventory of standard mechanical components and aquatic equipment for ease of replacement, maintenance, and repair
2. Allocate and designate a central aquatic system facility that would provide an opportunity to store aquatic equipment, make repairs, and house aquatic maintenance staff, while also providing a closer connection between aquatic and maintenance staff
3. Mentor, train, and support existing and future aquatic mechanic/maintenance staff
4. Procure and support the acquisition of additional aquatic mechanic staff
5. Support, develop, cross-train, and mentor aquatic staff in the maintenance and operations of aquatic facilities

Goal 6: Foster Partnerships

Foster partnership opportunities to complement and enhance the aquatic system

Objectives:

1. Develop and expand aquatic partnerships with local educational entities and organizations who may want to include aquatics as part of their curriculum or activities offered

2. Expand partnerships to increase swimming abilities and water safety
3. Increase and enhance outreach to promote aquatic programs and water safety

Goal 7: Recruit & Retain High Performance Staff

Hire, train, and secure retention of developed aquatic staff

Objectives:

1. Train, mentor, and maintain a dedicated aquatic staff at all levels
2. Continually evaluate hiring practices and procedures to improve and expand the Aquatic Staff, such as:
   - Develop and foster relationships with Corporate City of Austin Human Resources and PARD Human resources in the hiring of lifeguards and other aquatic staff as needed
   - Automate administrative hiring practices for seasonal lifeguards
3. Establish and hire the needed quantity of full time lifeguard employees to support a year-round aquatic system
4. Implement procedures and policies to enhance recruitment of lifeguard staff, such as:
   - Continue to sponsor and provide non-fee based lifeguard training
   - Sponsor and provide a no-cost alternative to supply lifeguards with uniforms and equipment
   - Consider paying or reimbursement for lifeguard training
5. Adapt and procure permanent 'front line' staff for utilization at aquatic facilities and to omit the demand for lifeguards from performing other duties
6. Improve lifeguard staff experience and retention during the operating season by improving environmental conditions and amenities at each aquatic facility, such as:
   - Provide lifeguard break/safety rooms with environmental controls
   - Improve quality and quantity of shading at facilities for lifeguards
   - Provide free of charge, sun protection material and apparel
   - Provide access to ice and cold water

Goal 8: Environmental Sustainability

Provide facilities that maximize environmental sustainability and energy efficiency

Objectives:

1. Upgrade and standardize facilities and procedures with more efficient aquatic facility design which takes advantage of technology, such as:
   - Auto-fill
   - Variable speed pumps
   - Improved chemical controllers
2. Design facilities using Leadership in Energy and Environmental Design (LEED) and/or Sustainable Sites Initiatives (SITES) principles, such as:
   - Upgrade systems to provide a potential reduction of water use
   - Design landscapes for low water use and low maintenance levels
   - Utilize stormwater best management practices

POOL CLASSIFICATIONS

Austin currently has five categories of aquatic facilities: Neighborhood Pools, Municipal Pools, Wading Pools, Waterfront, and Spraygrounds.

The public engagement process identified community desires for a variety of facility types, sizes, and features. Participants reviewed the facility classifications at public meetings and used templates to identify potential arrangements throughout the City to represent an equitable distribution of facilities to serve the growing participation. A mixture of Neighborhood, Community, and Regional Pools was identified with a clear need for indoor facilities for year-round programs and training. The table below identifies the recommended pool classifications.

Classification	Service Area	Pool Square Feet	Features
Neighborhood Pool	20-minute walk 5-minute drive	3,000 – 5,000 S.F. Zero depth entry. 25 m x 6-8 lanes	Recreation and Activity Pools
Community Pool	10-minute drive	5,000 – 7,000 S.F. Zero depth entry. 25 m x 6-8 lanes	Recreation and Activity Pools
Regional Aquatic Center	15-minute drive	7,000 – 12,000 S.F. 25-50 m long x 6-8 lanes	Interactive water plan features, party/staff training room, youth fitness, may have 50 m length
Year-Round Community Indoor Facility	15-minute drive	5,000 - 7,000 S.F. 25 yards x 6-8 lanes	Designed for training, fitness, and program use

These classifications are intended to help start a conversation, when a new facility is to be developed. Public engagement will be necessary to identify the type, size, and features most desired for a specific location.

SUSTAINABLE AQUATIC SYSTEMS

The City of Austin - Office of Sustainability defines three goals for sustainability:

- Prosperity and jobs
- Conservation and the environment
- Community health, equity, and cultural vitality

In relation to the Austin Aquatic System, sustainability should be applied on several fronts, including the following:

- Facilities
- Budget/Cost
- Staffing
- Maintenance/Operations
- Programming

The following five categories should be used to benchmark a sustainable system:

- Water Use
- Attendance
- Annual Maintenance Repairs
- Demographics
- Actual Cost per Patron (Future)

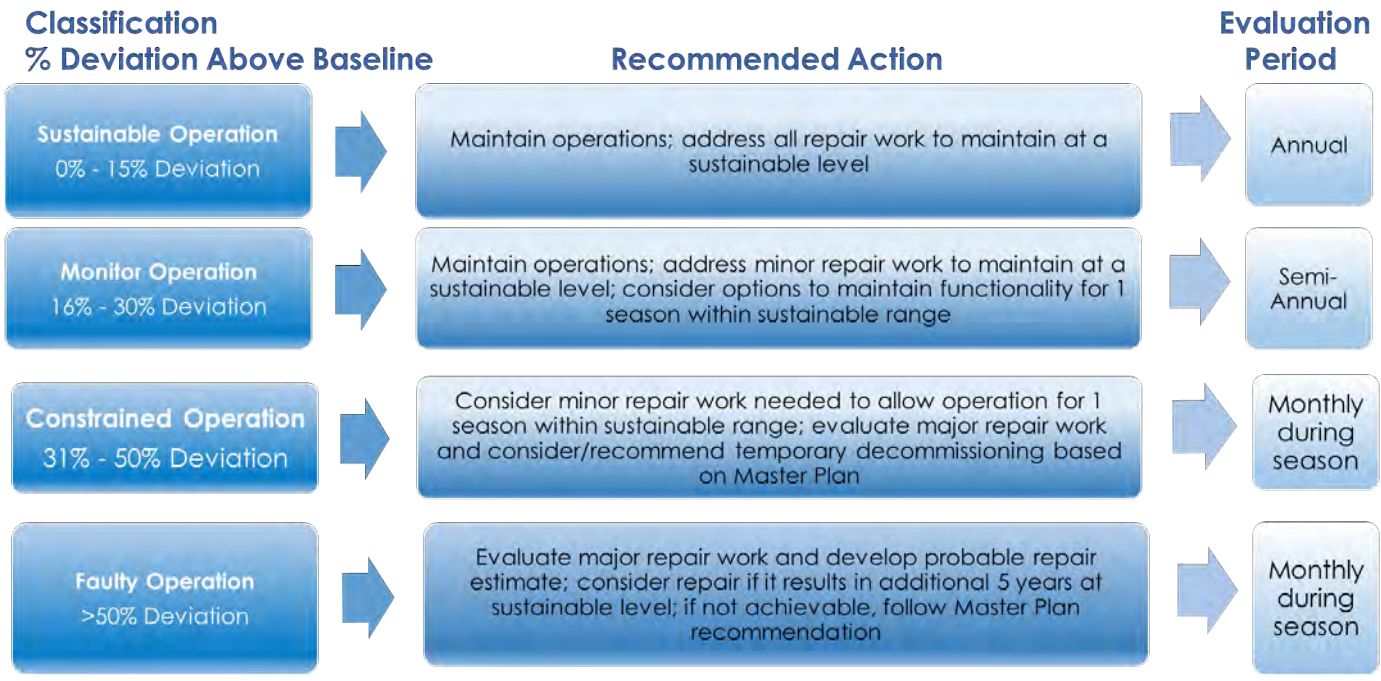
Baseline values must be established for each benchmark category, and these values should be updated annually as new data becomes available. The actions recommended in the Aquatic Facility Sustainability table below apply when a pool reaches the indicated deviation in any benchmark category. The Site Suitability Ranking Process described next should be utilized as part of the decision-making process once the highest threshold is reached.

SITE SUITABILITY RANKING PROCESS

The purpose of the Site Suitability Ranking Process was to establish a methodology to rank the suitability of existing and future aquatic sites for development, renovation, expansion, consolidation, or decommissioning.

This process will be used as a guide for future decision-making with regard to the status of aquatic facilities. The flow chart below summarizes the steps of the process, which incorporates input gathered from the public plus an extensive amount of data relevant to the assessment of a site for development or redevelopment as an aquatic facility.

Site Suitability Rating Scores were determined for each pool site, including separate scores for the Neighborhood and Community/Regional scenarios. The Site Suitability Rating Score represents the summation of criteria scores multiplied by the



criteria weights. Scores could theoretically range from 0 to 100. Actual results ranged from 42 to 81 for Neighborhood Pool and 46 to 71 for Community or Regional Pool.

Using the scores from this site suitability process, pool sites were then ranked (against each other) by pool classification. The top ten aquatic sites for Community Pools and top five for Regional Pools are listed below.

Community Pool

- Bartholomew
- Garrison
- Mabel Davis
- Balcones
- Walnut Creek (tied)
- Dick Nichols (tied)
- Northwest (tied)
- Dove Springs (tied)
- Givens
- Montopolis

Regional Pool

- Bartholomew
- Garrison
- Mabel Davis
- Balcones
- Walnut Creek (tied)
- Dick Nichols (tied)

AQUATIC SYSTEM RECOMMENDATIONS

This Master Plan provides aquatic system recommendations to facilities, operations, policies, and programs in Austin. The implementation of these recommendations should include follow-up public input processes to ensure that any proposed changes meet the aquatic needs of the local community.

Aquatic Facilities and Distribution

The Austin residents and the Parks and Recreation Department indicated a need for a more sustainable and equitable system. To accomplish this end, an aquatic system should be implemented using the pool classifications outlined on the previous pages. The map on the opposite page, Aquatic Service Areas – 20 Year Plan, identifies the distribution of this system.

Regional Aquatic Centers

Pools would be upgraded to Regional Aquatic Centers at the following sites:

- Balcones
- Bartholomew
- Garrison
- Northwest
- Deep Eddy (serves as a unique regional facility)

Community Pools

Pools would be upgraded (or developed) to Community Pools at the following sites:

- Dick Nichols
- Dittmar
- Dove Springs
- Givens
- Montopolis
- Springwoods
- Walnut Creek
- Northeast (new) - To serve an underserved area (east of I-35 and north of Highway 290)
- Northwest (new) - Long-term replacement of Canyon Vista
- Southeast (new)
- Southwest (new)

Neighborhood Pools

Gaps between Regional and Community facilities will be filled by the existing Neighborhood Pools. The Site Suitability Ranking Process and Sustainability thresholds should be utilized to guide decisions at these locations.

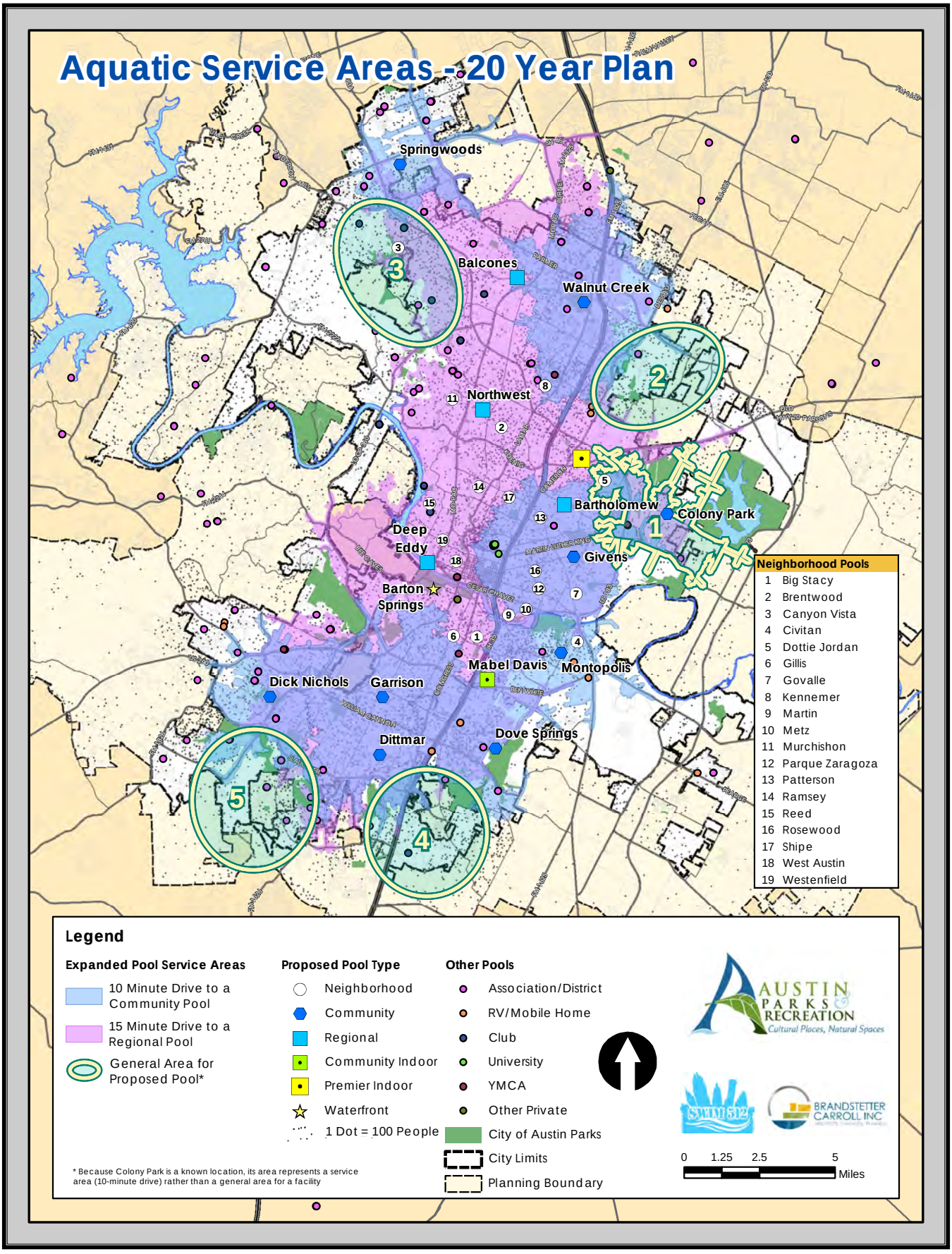
New Indoor Facilities

The map also shows two indoor facilities: a Premier Indoor Facility, located within a triangle east of I-35, south of Highway 183, and north of Highway 290, and a Community Indoor facility to serve the southern portion of the City.

Operations

General

1. Establish a central Aquatic Maintenance Facility
2. Synchronize supply inventory control and procurement policies


Aquatic Service Areas - 20 Year Plan
Springwoods
Balcones
Walnut Creek
Northwest
Bartholomew
Colony Park
Deep Eddy
Barton Springs
Givens
Mabel Davis
Montopolis
Dick Nichols
Garrison
Dittmar
Dove Springs
1
2
3
4
5
Neighborhood Pools
1 Big Stacy
2 Brentwood
3 Canyon Vista
4 Civitan
5 Dottie Jordan
6 Gillis
7 Govalle
8 Kennemer
9 Martin
10 Metz
11 Murchishon
12 Parque Zaragoza
13 Patterson
14 Ramsey
15 Reed
16 Rosewood
17 Shipe
18 West Austin
19 Westenfield
Legend
Expanded Pool Service Areas
10 Minute Drive to a Community Pool
15 Minute Drive to a Regional Pool
General Area for Proposed Pool*
Proposed Pool Type
Neighborhood
Community
Regional
Community Indoor
Premier Indoor
Waterfront
1 Dot = 100 People
Other Pools
Association/District
RV/Mobile Home
Club
University
YMCA
Other Private
City of Austin Parks
City Limits
Planning Boundary
* Because Colony Park is a known location, its area represents a service area (10-minute drive) rather than a general area for a facility
AUSTIN PARKS & RECREATION Cultural Places, Natural Spaces
SWIM 512
BRANDSTETTER CARROLL INC
0 1.25 2.5 5
Miles

3. Include Wi-Fi and internet (fiber) capabilities for greater efficiency
4. Utilize online applications to improve efficiency of the large and aging aquatic system

Marketing

1. Increase the use of social media and the marketing budget
2. Promote new programs targeted to Active Adults and Seniors
3. Create new special events and networking opportunities through aquatic programming targeted at young adults without children
4. Get creative in partnering with fitness centers, physical therapists, hospitals, health insurance providers, fitness non-profit organizations, and clubs for sponsorships, leases, and rentals

Lifeguard Retention

1. Improve staff areas when facilities are selected for improvement or replacement
2. Provide Support Staff to assist Lifeguards with additional tasks (janitorial, customer service)
3. Expand tuition reimbursement or scholarship aid for Lifeguards who successfully earn certification
4. Reduce janitorial obligations for the Lifeguards
5. Consider financial assistance for transportation due to the size of the City and long commutes
6. Focus recruitment efforts, affordable or subsidized training, and employment incentives in neighborhoods where Lifeguard applicants have been limited
7. Incorporate online scheduling and payroll programs
8. Consider an indoor facility to increase In-Service and Pre-Season Training opportunities
9. Hire more Full-Time Head Lifeguards for a higher level of professionalism

Policies and Partnerships

Attendance

1. Make Free Life Vests (PFDs) available at all locations for children who cannot pass the swim test
2. Increase availability of Learn to Swim programs for children and adults with unique needs through partnerships and sponsors
3. Begin to search out potential partners and sponsors for the development of an indoor aquatic facility
4. Develop partnerships with club teams, high school teams and other groups, including competitive divers and synchronized swimmers, who might rent pool space at a premier indoor facility

Environmental Sustainability

1. Design and operate all new facilities to LEED Silver level guidelines as required for all large capital projects for the City
2. Utilize efficient equipment
3. Utilize rainwater and reclaimed water for irrigation
4. Monitor water use to respond quickly to any leaks
5. Specify grasses and landscape planting better for Austin's climate
6. Locate pools near public transportation for ease of access
7. Reduce paper waste through digital connections, improved by providing Wi-Fi
8. Ensure that pool backwash flows to sanitary sewer lines rather than into creeks or drainage corridors
9. Coordinate Best Management Practices with the Offices of Sustainability, Watershed Protection, etc.
10. Utilize natural light and/or LED fixtures in structures
11. Utilize low-flow plumbing fixtures
12. Consider the long-term use of a pool during the design process with consideration to ease of maintenance, energy use, and impact on the environment

Revenue Generation

Revenue generation would contribute to a more sustainable aquatic system. The following opportunities should be further explored to generate revenue.

1. Fees and Charges

The new aquatic system provides a variety of aquatic opportunities with Neighborhood Pools remaining free and fees for Community and Regional pools (based upon the socio-economic conditions of the surrounding market area).

2. Concessions

All Regional Aquatic Centers (and potentially Community Pools) should have concession offerings with a shaded area. PARD could operate concessions at a substantial profit.

3. Naming Rights/Sponsorship and Partnerships

The quality of the new facilities offers an attractive opportunity for naming rights and sponsorships. Events and programs could also be sponsored.

PARD should explore partnerships with healthcare providers, commercial entities, and .

4. **Increased Programming**

   The upgraded facilities will offer an opportunity to expand program offerings, and thereby increase revenue.

Programs

1. Utilize videos for parents to determine skill level for correct class placement for swim lessons
2. Emphasize the need for drowning prevention programs and swim lessons
3. Provide promotional materials to worship, medical offices, and social services agencies to get more children enrolled
4. Consider evening and weekend lessons to accommodate the needs of working parents
5. Provide more "teachable" and "swimmable" water at new facilities considered including heating for early season lessons and active adult early morning programs
6. Place the focus on drowning prevention and safety as a necessary lifetime skill
7. Create new programs targeted to Active Adults and Seniors

IMPLEMENTATION

Capital Costs

Capital costs for aquatic improvements are estimated in the range of $152 to $193 million, depending on how many of the current Neighborhood Pools are kept in operation.

Staffing

The pool staffing requirements for the new system will be approximately 980 staff (2016 staff included 768 total staff), including lifeguards, pool managers, attendants, etc.

Revenue

This new system has great potential for increased income generation from concessions, entrance fees (an increase of approximately $1.5 to $2 million per year), and programming.

The indoor pools would generate revenues from increased programs, pool and lane rentals, swim meets, concessions, and other sources. In addition, similar indoor facilities throughout the country have benefited from both capital and operating funds from hotel taxes, tourism funds, sponsorships, naming rights, and partnerships.

Operations Costs

Once the recommendations are fully implemented, PARD should experience lower costs for operation per pool due to the newer condition of facilities, more energy efficient mechanical systems, reduced maintenance repairs, and the benefits of a LEED Certified and more environmentally sustainable system. Staffing costs will be higher due to the increased number of staff (primarily Lifeguards) required to operate the system as mentioned earlier in this chapter.

Maintenance Repairs

Continuous maintenance repairs, both scheduled (known) and unscheduled (unknown), will remain constant until all of the pools are upgraded. The process outlined in Chapter 6 should be followed to examine the Sustainability of a pool going forward. In addition, PARD should not spend more than $200,000 on a pool to keep it in operation unless the repairs will keep the pool operating for another 3-5 years and/or the repairs will be incorporated into the pool upgrade process..

Potential Funding Scenarios and Fiscal Expenditures Priorities

The City would need at least $8 to $10 million per year over the next 20 years to implement all of the capital facility improvements recommended in this plan (not including inflation). These capital improvements must be weighed against the other needs of the City.

A goal of this plan is to provide the City with the tools necessary to develop a more sustainable and equitable system of aquatic facilities and programs. Accordingly, PARD and the City should use this plan to develop a capital improvement plan that considers other fiscal expenditure priorities.

Recommendations for prioritization:

- Address the critical pools in danger of failing based on Sustainability thresholds in conjunction with Site Suitability Rankings
- Make geographically located improvements to maintain quality facilities throughout the City
- Prioritize development of at least one indoor facility to assist in Lifeguard recruitment and training and meeting a growing need for year-round programming and lap swimming
- Develop new pools based on population growth in areas indicated in this plan

TABLE OF CONTENTS

1 INTRODUCTION

1.1 Background

The Austin Parks and Recreation Department's Aquatic Division is charged with the daunting task of managing 51 public aquatic facilities and providing quality programs and services to the residents of the City of Austin. In order to provide these services in a safe and effective manner, their year-round and seasonal operations require the recruitment, training and supervision of over 750 lifeguards to fully staff its lifeguarded sites. These facilities include seven (7) municipal pools, 28 neighborhood pools, three (3) wading pools, 11 splash pads, one (1) rental facility at Commons Ford Ranch, and Barton Springs Pool.

This inventory of aging aquatic infrastructure, combined with rapid population growth, demographic changes, funding considerations, and regulatory requirements, presents a challenge for the City of Austin's Aquatic Management Team but also serves as the catalyst for examination and planning for the future of the City's aquatic facilities.

With approximately 1.25 million annual visitors to these facilities, the Aquatic Division is not only charged with providing a safe, clean and healthy environment but also the management, fiscal accountability, and maintenance of the mechanical operations. The City of Austin has an exceptional reputation in the aquatic industry and operates two facilities that are considered historically relevant to the development of America's public sector pools: Deep Eddy Pool and Barton Springs Pool.

However, in the summer of 2017, four city pools were closed for the season due to leaking and aging conditions (Shipe, Govalle, Givens, and Mabel Davis). In 2014, City officials allocated $3 million dollars for both Shipe and Govalle to be rebuilt and returned to the aquatic center inventory in 2018. With the closure of the Mabel Davis Pool (and later Givens), the Austin Parks and Recreation Department proposed providing a shuttle service to the Garrison Pool in south Austin throughout the summer months, exemplifying PARD efforts to ensure aquatic access to residents.

Community members who frequent the City of Austin's public aquatic facilities love their pools and over 13,000 residents actively participated in a three-part, comprehensive public education and consensus building process called SWIM512. The methodology and results are detailed in Chapter 2 of this Aquatic Master Plan. Working with industry professionals, professional staff, a citizen's advisory board, and community members of Austin, the completion of this 20-30 year vision for Austin's aquatic facilities will serve as a guide for Austin's aquatic future. This effort alone has exhibited the Austin Parks and Recreation Department's commitment to aquatics.

1.2 Master Plan Purpose

In 2015, the City of Austin (City) Parks and Recreation Department (PARD) issued a Request for Proposals and selected the Team of Brandstetter Carroll Inc., Adisa Communications, Architecture Plus, JLJ Enterprises, and Chan and Partners to provide consulting services for the creation of a master plan to guide the current usage and future development of the City's public swimming pools and related facilities. The goal was to recognize facility management opportunities system-wide and to provide recommendations on the current, expanded or reduced aquatic facility system that would be both more equitable and more sustainable into the future.

The City of Austin commenced construction of aquatic facilities in the early 1930s. In principle, PARD's existing aquatic facilities were planned to operate for fifty years and most facilities are approaching, or have exceeded their operating life span. The Parks and Recreation Department (PARD) and Brandstetter Carroll Inc. completed an Aquatic Facility Needs Assessment in 2014, which included the inspection, evaluation, and recommendation for renovation, redevelopment and/or replacement with new facilities on existing or alternative sites. The assessment also included a Qualitative Assessment of each pool facility. The Aquatic Division intended to expand on the findings of the Aquatic Assessment by developing this Aquatic Master Plan. The process of developing this Master Plan was a top priority for PARD and the City of Austin. The geographical, environmental, recreational, historical, and cultural qualities of the existing facilities provide an opportunity to enhance the aquatic program for PARD and the City.

The plan, which builds upon and serves as a continuation of the Aquatic Facility Needs Assessment, is intended to provide PARD with a comprehensive Master Plan that addresses existing management opportunities and constraints, develops a sustainable management model for existing facilities and provides recommendations in developing an equitable, city-wide sustainable facility model that addresses the present and future needs of the City. Additionally, this master plan must be treated as a living document that needs to be reviewed and revised every 5 years (minimum) or as needed to respond to changing demographics and urban growth patterns of the City of Austin.

1.3 Master Plan Objectives

The Master Plan efforts focus on thirty-three (33) existing aquatic facilities and one potential pool site, including but not limited to the pool, the bathhouse, the mechanical room, parking lot, and other support facilities. The emphasis is on addressing aquatic facility system management issues, including aquatic user facility programs, facility operation and maintenance, facility environmental sustainability, aquatic health codes, and aquatic program fiscal efficiencies aquatic facilities.

The recommendations of the Master Plan are intended to be used as a guide for sustainable and equitable management of City of Austin aquatic facilities and associated attributes. The recommendations may be utilized as marketing tools to generate public interest, support, funding, and design efforts for future development of aquatic facilities and associated uses.

1.4 Master Plan Process

The Brandstetter Carroll Inc. Team (BCI Team) utilized an approach, which built upon the Team's prior knowledge of the Austin Aquatics System and which provided a logical sequence of reviewing the existing conditions and direction, development of a vision based upon stakeholder engagement, outlining alternative scenarios for the aquatics system, and finally developing an Action Plan to implement the recommendations. The following phases were implemented as part of the Master Plan process:

- **Process Development Phase** to refine the scope of work and prepare a Public Engagement Plan
- **Planning Context Phase** to review existing conditions and practices, identify key issues and concerns, and summarize the findings which provided the background framework for the remaining tasks
- **Strategic Vision, Goals and Objectives Phase,** which included the first round of stakeholder discussions which were used along with the Planning Context to develop the Vision, Mission, Goals and Objectives
- **Analysis and Preliminary Recommendations Phase** to identify alternative scenarios for the overall

system and then analyze and provided recommendations for implementation of an expanded or contracted aquatics system

Various types of aquatic facilities were identified to serve the diverse needs of Austin. The public engagement assisted to identify the priorities for criteria to be used in the process of rating the existing pools for their ability to be maintained and/or upgraded. The Consultants used these priorities to analyze 78 elements (within 8 criteria) for each existing pool site and one proposed site and then to rank the sites for their ability to serve into the future.

- **Action Plan Phase** which refines the preliminary recommendations based upon review comments; establishes long term goals, objectives, and strategies; and provides an Action Plan for implementation which identifies projects, programs, policies, funding sources, and responsible parties in a time sequence format. This phase addressed programs, use agreements, partnerships, operations, sustainability, Best Management Practices, potential revenue generation, proposed facility improvements, and personnel.
- **Final Master Plan Phase** to bring all of the previous phases into one comprehensive report. The process on reviewing the draft included reviewing the project scope, responding to issues and concerns as they were presented during the development of the master plan, and addressing comments/concerns related to the master plan as collected from Boards and Commissions, TAG, Aquatic Advisory Board the PARD Technical Team and District Representatives.

Throughout the process, the Consultants coordinated closely with a Team of PARD Administration, Park Development Division, and Aquatic Division. These committees were also engaged as sounding boards throughout the process of developing the Master Plan.

- The **Technical Advisory Group (TAG)** of primarily City staff, which included representatives from the following groups/agencies/departments:
  - **Watershed Protection** to address water quality issues and City of Austin existing conditions, such as regulatory and ordinances and emptying to creeks
  - The **Land Development Group,** part of Public Works and is involved in the City of Austin permitting process
  - **Imagine Austin** and **Code Next,** a big picture organization with emphasis on codes and zoning
  - The **Austin Office of Sustainability** with a role of environmental awareness
  - **University of Texas Aquatics** and Charles Logan to provide their technical expertise on pool operations and would be a possible renter of facilities
  - **AISD,** a potential partner in the use of the pools
  - A **pool aquatics specialist** from the construction industry
- The **Aquatic Advisory Board (AAB)** is an existing committee of internal stakeholders with a thorough understanding and history of engagement with the pools and programs.
- **Technical Team (TT)** is primarily the PARD Aquatics Division staff, a representative of the PARD Public Information Office, and the Project Manager from Park Development which provided oversight of the overall process and reviewed the details and operations of maintenance part of the planning.
- **District Representatives Group (DRG)** is comprised of representatives from Council Districts.
- **BCI Consultant Team** – The contracted consulting team consists of Brandstetter Carroll Inc., Architecture Plus, Adisa Communications, JLJ Enterprises, and Chan & Partners LLC.

Three **Technical Memos** were prepared by the Consultant and delivered to the TAG. These documents served to keep the group updated with regard to the completion of various tasks of the planning process. These Technical Memos were later incorporated into the text of this Master Plan.

Technical Memo 1

This memo included the following:

- A summary of the Public Involvement Plan - Now part of Chapter 3 (full text in Appendix D)
- A summary of the March 2016 Public Workshops - Now part of Chapter 3
- A discussion of the survey to be used at July 2016 Public Workshops

The full text of this memo with referenced documents is located in Appendix C.

Technical Memo 2

This memo included the following:

- A summary of the staff SWOC (Strengths, Weakness, Opportunities, and Challenges) - See Chapter 2
- A summary of Austin Aquatic Programs, Attendance, and Budget - Now part of Chapter 2
- Interviews of the Technical Advisory Group - Utilized as part of the Health, Safety, Welfare, Environmental, and Regulatory analysis in Chapter 2

All elements of this memo have been integrated into this document. As a result, it was not necessary to duplicate this information in the appendix of this Master Plan.

Technical Memo 3

This memo included the following:

- A summary of the Public Input to date - Now part of Chapter 3
- The results of the survey referenced in Technical Memo 1 - Now part of Chapter 3
- A discussion of the survey to be used at July 2016 Public Workshops - Included in Chapter 3

The full text of this memo, including full survey results, is located in Appendix C.

2 PLANNING CONTEXT

2.1 Introduction

The Planning Context chapter provides an overview of the factors and conditions that represent the existing conditions for aquatic facilities and programs in Austin. These factors must be considered as part of an effort to determine the improvements necessary to yield a more sustainable and equitable aquatic system to serve Austin residents and visitors. This chapter includes a summary of the Aquatic Needs Assessment, a review of the current status of the aquatic system, an analysis of aquatic operations, and an overview of health, safety, welfare, environmental and regulatory conditions facing the Austin Parks and Recreation Department (PARD).

2.2 Demographics

2.2.1 Introduction

An overall understanding of the population characteristics and demographic trends in Austin is necessary to identify the present and predicted future needs for aquatic services and facilities. This section provides a summary of demographics for the City of Austin as a whole. For demographics based on service area of aquatic sites, see Chapter 7.

2.2.2 Austin Demographic Characteristics

Table 2.1 illustrates the population trends for the City from 1960 to 2040. This table uses US Census Bureau data and projections from City Demographer Ryan Robinson for future projections. Trends indicate that the population has increased continuously, with the largest growth rates from 1970-2000, and is expected to continue to grow at a steady pace through 2040.

Table 2.1: Austin Population (1960-2040)

	Census						With ETJ	Projections*		
	1960	1970	1980	1990	2000	2010	2010	2015	2020	2040
Austin	186,545	251,808	345,890	499,125	656,562	790,390	965,605	1,059,680	1,152,559	1,574,742
10 Year Growth %		34.9%	37.3%	44.3%	31.5%	20.4%			19.4%	

Source: U.S. Census Bureau and City Demographer Ryan Robinson (projections)
*Include ETJ

Table 2.2 shows the household from 2000 to 2022 and indicates that, in Austin, the average household size decreased from 2000 to 2010 but is expected to remain steady at 2.37 through 2022. The average household size for residents in Austin is lower than for the United States, Travis County, and the State of Texas. The 2017 average household size of 2.37 is lower than that of Travis County (2.49) which is lower than that average household size of the State of Texas (2.78). The 2.58 average size for the USA is between the Travis County and Texas values.

Table 2.2: Household and Family Size (2000-2022)

	Households	Average Household Size			
	2017	2000	2010	2017	2022
USA	123,158,887	2.59	2.58	2.59	2.60
Texas	8,922,933	2.74	2.75	2.78	2.79
Travis County	476,373	2.47	2.48	2.49	2.50
Austin	386,333	2.41	2.37	2.37	2.37

Source: U.S. Census Bureau, Esri forecasts

Table 2.3, Median Age, identifies a trend throughout Austin, Travis County, Texas, and the USA of an increasing median age. The median age in Austin was 29.6 in 2000 and is expected to increase to 32.9 by 2022. It should be noted that the median age for Austin is slightly lower than for the County and the State, and significantly lower than the U.S. The median age in 2017 was 32.6 in Austin as opposed to 33.0 for Travis County, 34.6 for Texas, and 38.2 for the USA. The age of the residents is important, because PARD needs to plan for the appropriate age groups that it will be serving through its aquatic facilities.

Table 2.3: Median Age (2000-2022)

	2000	2010	2017	2022
USA	35.3	37.1	38.2	38.9
Texas	32.3	33.6	34.6	35.6
Travis County	30.4	32.0	33.3	33.7
Austin	29.6	31.2	32.6	32.9

Source: U.S. Census Bureau, Esri forecasts

Table 2.4 displays the population age 65 and over from 2000 to 2022 and indicates that this age group increased from 6.7% to 9.1% of the population in Austin between 2000 and 2017 and is expected to continue to increase to 10.4% by 2017. All of the other jurisdictions have a higher percentage of the population in this age cohort than does Austin, which is currently (as of 2017) at approximately 9.1%, compared to the County at 9.5%, the State at 12.5%, and the USA at 15.6% of the population. The percentage of persons over age 65 is significantly lower in Austin and Travis County than the other jurisdictions.

Table 2.4: Population Age 65 and over (1990-2017)

	2000		2010		2017		2022	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
USA	34,991,753	12.4%	40,136,920	13.0%	51,092,236	15.6%	60,072,953	17.6%
Texas	2,072,532	9.9%	2,615,138	10.4%	3,537,012	12.5%	4,303,289	14.0%
Travis County	54,824	6.7%	74,771	7.3%	114,956	9.5%	148,705	11.0%
Austin	43,905	6.7%	56,009	6.9%	85,158	9.1%	106,520	10.4%

Source: U.S. Census Bureau, Esri forecasts

Table 2.5 identifies the population under age 18 from 2000 to 202. The table indicates a steady decrease in the percentage for this age range in the City of Austin from 22.5% in 2000 to 21.8% in 2017. This decline corresponds to the previous table which identified the growing population over age 65. The percentage of the population under age 18 in Austin is lower than for the County, the State, and the USA. It is notable, however, that the percentage in this age group is not declining as rapidly in Austin or Travis County as it is

in Texas or the USA, in contrast to their lower percentage. Additionally, the total number of residents under age 18 is increasing dramatically in Austin, despite the decreasing percentage of this age group, due to continued population growth.

Table 2.5: Population Under 18 (1990-2017)

	2000		2010		2017		2022	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
USA	72,325,430	25.7%	74,098,929	24.0%	73,035,696	22.3%	75,091,191	22.0%
Texas	5,880,213	28.2%	6,864,738	27.3%	7,215,505	25.5%	7,776,658	25.3%
Travis County	193,323	23.8%	244,800	23.9%	281,944	23.3%	312,280	23.1%
Austin	147,726	22.5%	180,204	22.2%	204,006	21.8%	221,234	21.6%

Source: U.S. Census Bureau, Esri forecasts

All of this information indicates that the population of Austin is younger and has smaller household and family sizes than the County, the State of Texas, and the United States in terms of their percentages.

2.2.3 The Top Ten Demographic Trends in Austin (As identified by City Demographer, Ryan Robinson)

Many of these trends reaffirm the demographic patterns described previously in the previous section (2.2.2). The following text was written by Ryan Robinson, City of Austin Demographer, and reproduced with minor modification from City of Austin website.[1]

Austin is evolving as a city and as an urban area. Its point along a trajectory of growth and demographic change can be located and described by outlining several large-scale phenomena of urbanization. This list of The Top Ten Big Demographic Trends will attempt to answer these questions: Where have we just come from, where are we now, and where are we going as a City? Demographically speaking that is.

The theme of ethnic change and diversification is a common one throughout the Top Ten, and yet each point addressing the issue highlights a particular aspect of ethnic change significant in its own right. In one way or another, the trends discussed below are inherently intertwined with one another—each force exerting its own push or pull on the collective, synergistic direction of the City's demographic path.

1. No majority

The City of Austin has now crossed the threshold of becoming a Majority-Minority city. Put another way, no ethnic or demographic group exists as a majority of the City's population. The City's Anglo (non-Hispanic White) share of total population has dropped below 50% (which probably occurred sometime during 2005) and will stay there for the foreseeable future.

It's not that there has not been absolute growth in the total number of Anglo households in Austin but rather it's because the growth of other ethnic and racial groups has outpaced the growth of Anglo households. For example, the growth rate of Latino and Asian households far exceeds the growth of Anglo households in Austin.

And yet, what used to resemble a seemingly inexorable path toward greater and greater ethnic and racial diversification within the City is becoming less certain. The brakes have been thrown on the City's rate of diversification--due mostly to housing prices inside the urban core which have spiked--with no apparent end in sight to the increases. The Whitening of the urban core is indeed striking. Almost all of central east Austin and vast stretches of south central Austin became Whiter during the decade. So what's happened since 2010? More than likely, we have experienced a continuation and even a possible acceleration of this trend. We really won't know until we can map Census 2020 data. Annual tract-level population data updates from the Census Bureau's American Community Survey come freighted with such large margins-of-error that it's difficult to determine what exactly is happening demographically within neighborhoods across the City.

[1] City of Austin website, "Top Ten Demographic Trends in Austin, Texas," http://www.austintexas.gov/page/top-ten-demographic-trends-austin-texas

2. Decreasing families-with-children share in the urban core

The share of all households within the city's urban core made-up of families-with-children is slowly declining. In 1970, the urban core's families-with-children share was just above 32%, Census 2000 puts the figure at not quite 14%. Moreover, with only a few neighborhood exceptions, the urban core is also becoming almost devoid of married-with-children households.

Citywide, the trends have been similar in that the overall number of families-with-children has increased while the share of total households from families-with-children has decreased. This relative loss of families-with-children households has significant implications for the city's several school districts, but AISD will feel the greatest brunt of the effect.

Here's the rub: the absolute number of children in the city is going up, while their share of total population is declining. This paradox is further exacerbated by the fact that in absolute terms the demand for services will increase as the share of families that remain within the city will become, in relative terms at least, increasingly poor because of who is left and who is moving in. School systems and health care providers will have a hard time managing the increasing absolute need in light of this loss in share.

Although there will continue to be pockets and neighborhoods with high concentrations of affluent families in Austin, it has been middle class families that are becoming increasingly less common within the urban core. Without a sizable share of middle class families to stabilize the urban core, working class families suffer because the rung above them on the socio-economic ladder has been removed, making it more difficult for them to achieve upward social mobility.

3. African American share on the wane

The city's African American share of total population will more than likely continue its shallow slide even as the absolute number of African Americans in the city continues to increase. The import of this decrease in share should not be underestimated as just a few decades ago African Americans made-up around 15% of the city's population and just a few decades from now African Americans could represent a mere 5% of the city's population and constitute the smallest minority group in the city.

4. Hispanic share of total population

Will it ever surpass the Anglo share? Maybe not, but they will be close to each other in a short 25 years. Enough cannot be said about how strong Hispanic growth has been. The city's Hispanic share in 1990 was under 23%, the Census 2000 figure was almost 31%, and this share of total is probably around 35% today.

Importantly, the city's stream of incoming Hispanic households is socio-economically diverse. Middle-class Hispanic households have migrated to Austin from other parts of the state and the country for high-tech and trade sector jobs while international immigrant Hispanic and Latino households have come here for construction and service sector jobs. Among other effects on the total population, the huge influx of Hispanic families into Austin, with higher-than-average household sizes and more children per household, has acted to dampen the increase in the city's median age, keeping Austin one of the youngest cities in the country. Moreover, were it not for Hispanic families moving into the urban core, the city's falling families-with-children share would have had a much steeper descent.

5. Asian share skyrocketing

The Asian share of total population in Austin almost doubled during the nineties, leaping from 3.3% in 1990 to almost 5% by 2000 and stands somewhere near the 6.5% mark today. Like their Hispanic counterparts, the incoming Asians to Austin during the past 15 years are a much more diverse sub-population than what existed in Austin in the past. For example, thirty years ago, any Asian in Austin was likely Chinese and somehow associated with the University of Texas. Today, Austin hosts an Asian population that spans the socioeconomic spectrum and is sourced by several countries of origin, with India, Vietnam and China being the largest contributors.

Austin has become a destination, for example, for Vietnamese households flowing out of metropolitan Houston. This highly entrepreneurial population has opened new businesses, purchased restaurants, made loans available to its network and acquired real estate. Emerging clusters of Vietnamese households are evident in several northeast Austin neighborhoods.

Amazingly, by the middle of the next decade, the number of Asians in Austin will more than likely exceed the number of African Americans. While the general population of Austin doubles every 20 to 25 years, the number of Asians in Austin is doubling every ten years.

6. Geography of African Americans, dispersion and flight to the suburbs

The critical mass and historical heavy concentration of African American households in east Austin began eroding during the 1980s, and by the mid-1990s, had really begun to break apart. Over the past 25 years, middle-class African American households have left east Austin for the suburbs and other parts of Austin. The level of residential segregation for African Americans has dropped significantly as their level of spatial concentration has diminished. Many community leaders talk today of how many of these families are still returning to churches in east Austin on Sunday morning. However, many of these same community leaders fear that the newly-suburban African American population will eventual build suburban churches closer to home, leaving the original houses of worship somewhat stranded. The potential impact of the loss of these churches and their community outreach and community care programs on the African American households left in east Austin could be devastating.

7. Geography of Hispanics, intensifying urban barrios along with movement into rural areas

Analysis of Hispanic household concentrations from Census 2000 reveal the emergence of three overwhelmingly Hispanic population centers in Austin: lower east Austin (which also serves as the political bedrock of Austin's Hispanic community), greater Dove Springs, and the St. Johns area. Dove Springs shifted from being about 45% Hispanic in 1990 to almost 80% by 2000. St. Johns went from being 35% to 70%--this radical transition is clearly evident on the streets of St. Johns, a neighborhood that once hosted one of Austin's oldest African American communities

The import of this trend is this: at the same time that ethnic minority populations are moving into the middle-class and are more capable than ever to live anywhere they choose, there are parts of the city where ethnic concentration is greatly increasing. However, it is lower-income minority households that are most likely to participate in the clustering phenomenon.

8. An increasingly sharp edge of affluence

Maps of Median Family Income from Census 2000 show an increasingly hard edge between affluent central Texas and less-than-affluent parts of the urban region. While some forms of residential segregation have decreased markedly over the past few decades in Austin, the degree of socio-economic spatial separation has steeply increased. The center of wealth in Austin has slowly migrated into the hills west of the city.

This trend of wealth-creep out of the City creates an even greater burden for citizens funding services and facilities that are used and enjoyed by individuals from across the region. Austin is becoming a more divided city, divided not just in terms of income but also in terms of cultural attributes, linguistic characteristics, and political persuasions. For example, precinct-level results from the 2004 Presidential election reveal a deep cleavage within the Austin urban area in terms of the residential location of Republicans and Democrats and the dividing line between Red and Blue Austin that roughly follows MoPac from south to north, illuminating the strong east to west political spatial dichotomy.

9. Regional indigent health care burden

During the foreseeable future, the regional indigent health care burden will continue to grow and the city's disproportionate shouldering of the cost will increase as well. The creation of the Travis County Hospital District in 2004 was a giant step toward leveling the uneven burden of indigent health care across the Austin region, and yet, there was an obvious spatial pattern of who supported the creation of the district and who did not, which can be seen in the precinct-level results of that vote.

10. Intensifying urban sprawl

The Austin region will continue to experience intense urban sprawl. Although there is an enormous amount of residential development currently underway within the urban core and in downtown Austin, the

thousands of new units being created there will be only a drop in the regional bucket of total residential units created. There simply are very few land availability constraints in the territory surrounding Austin.

And yet this is not to say that the positive effects of new urbanism and Smart Growth policies will not be felt inside the city, it is rather to say that even with the success of the many enlightened urbanizing efforts currently afoot in Austin, urban sprawl and its footprint will have an enduring presence in central Texas.

Conclusion

Austin is a magical place, an attractive place, attractive not only in terms of natural beauty but also in terms of its gravitational pull for people.

Austin draws its special character from its physical setting along the Balcones Escarpment, a city wedged between coastal plain and dramatic cliffs, canyons and juniper carpeted rolling hills; it sits on the edge of the Chihuahuan desert existing as a physical and cultural oasis where talented, entrepreneurial, hard working people are drawn from all over the world.

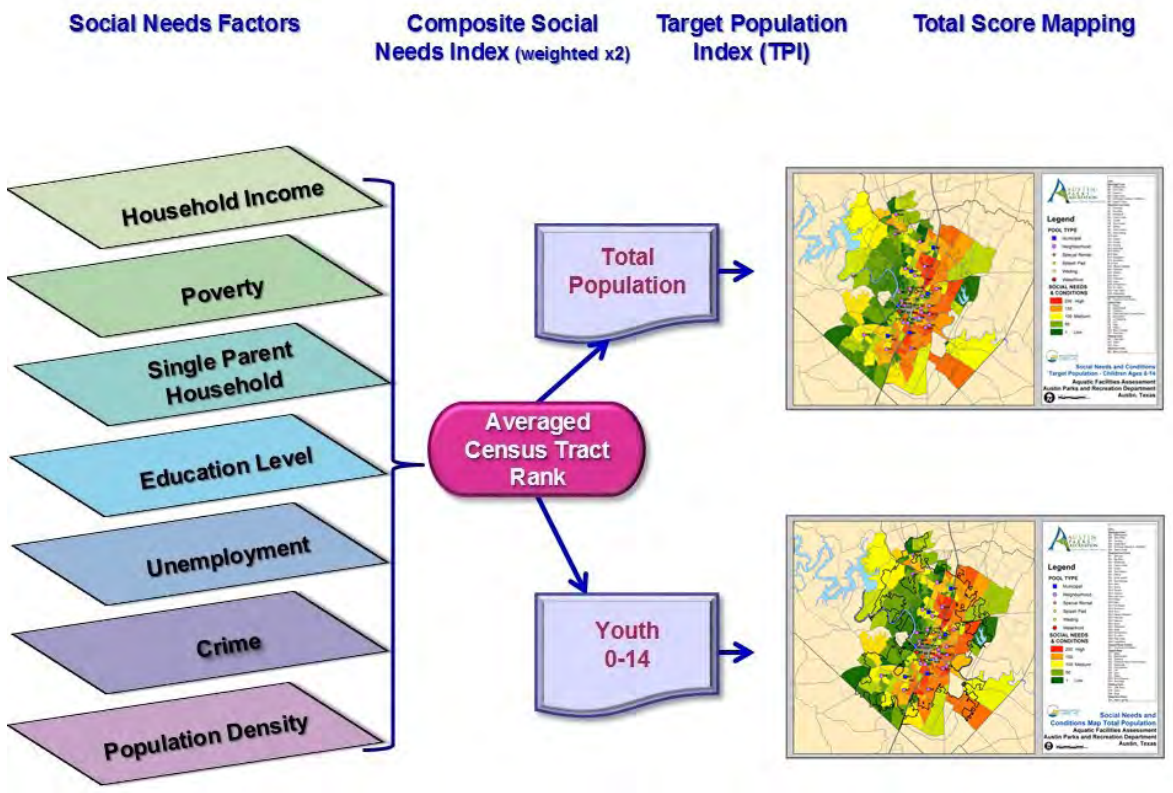
Austin's quality of life has become its biggest economic development engine, and the city's diverse demographic structure serves to support and enrich its quality of life.

NOTE: This list was originally put together in 2008 and has been updated using Census 2010 information and the more recently released American Community Survey data. March 2016.

2.2.4 Social Needs and Conditions Index

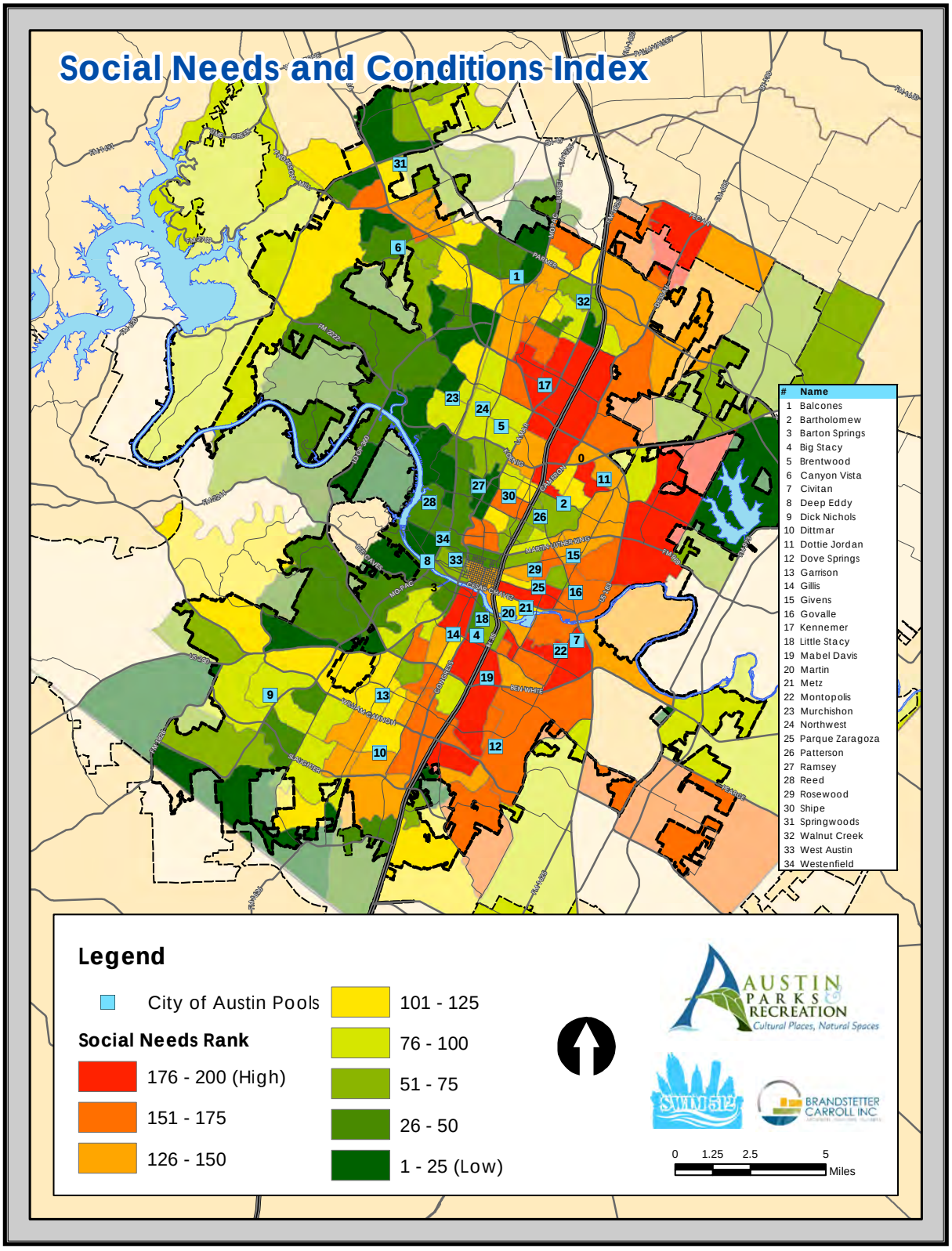
Certain socioeconomic characteristics help to identify individuals or target populations most likely to use and/or benefit from public sector programs, services, and community outreach efforts. The results of this analysis apply to much more than just parks and recreation services, indicating neighborhoods that would benefit most from community services of which aquatic facilities and programs represent just one example. The methodology used to develop this index is presented in Figure 2.1.

Figure 2.1: Social Needs and Conditions Methodology



A Social Needs & Conditions Index was developed from seven socioeconomic and demographic indicators that measure the well-being of residents in each of Austin's 200 census tracts. Figure 2.2 shows the Social Needs & Conditions Index for each of the census tracts in Austin. This data was used to assist the project team in establishing priorities as they relate to facility, outreach, and program development. The full text of this process is included as Appendix B.

Figure 2.2: Social Needs and Conditions Index



2.3 Aquatic Needs Assessment Summary

In 2013 and 2014, Brandstetter Carroll Inc. (BCI) and its team of consultants prepared the Aquatic Facilities Needs Assessment. That document works in conjunction with this Master Plan as a source of the qualitative assessment of the facilities, analysis, public engagement, and preliminary recommendations. The Needs Assessment is summarized here.

2.3.1 Existing Aquatic Facilities in Austin

The City of Austin has seven (7) municipal pools, 29 neighborhood pools, three (3) wading pools, and one (1) waterfront pool (Barton Springs). The City also operates eleven (11) splash pads and a rental facility. Two pools (Bartholomew and Westenfield) have recently been reconstructed, and four (4) pools are closed (Kealing, Palm, St. John's, and Odom). The splash pads are recent developments, and Deep Eddy and Barton Springs are totally unique facilities that have had other plans prepared in recent years. Table 2.6 provides an overview of the aquatic facilities in Austin with their configurations, sizes, year built/renovated, and the presence of a bathhouse or restroom building.

Table 2.6: Aquatic Facilities Characteristics

CURRENT POOL DESIGNATIONS	Shape	Length	Total Pool Square Feet	Main Pool Square Feet	Wading Pool S.F.	Depth (min-max)	Lanes	Changing Room / Restrooms	Year Built	Year Renovated
Municipal Pools										
Bartholomew	L and freeform	75'	7,740	7,740		0 "- 12'	4	Both	1961	2013
Deep Eddy	Rectangles					0" - 8'	9	Both	1921	2012
Garrison	Rectangle	162'x65'	14,485	12,275	2,210	3'-6'	8	Both	1966	
Mabel Davis	Rectangle	168'x62'	11,717	11,717		1'-12'	8	Both	1980	
Northwest	L	50m	15,642	13,392	2,250	3'-15'	8	Both	1956	
Springwoods	L with zero depth		4,400	4,400		0" - 5'	6	Both	Unknown	
Walnut Creek	L	25 m	14,951	10,643	4,308	2' - 12'	8	Both	1983	
Neighborhood Pools										
Balcones	L	75'	4,853	4,853		2'1"-4'	6	Both	1986	
Big Stacy	Rectangle	97'x43'	4,000	4,000		3'6"-6'10"	6	Both	1935	1977
Brentwood	Rectangle	42'x60'	2,731	2,400	331	3'-4'6"	5	Restrooms	1954	
Canyon Vista	Rectangle	75'	3,280	3,280		3'-9" - 12'-4"	6	No	1985	
Civitan	Rectangle	65'x45'	3,515	2,400	1,115	3'-5'		Restrooms	1964	
Dick Nichols	Rectangle	75'	10,463	9,848	615	3'-8'	9	Both	1996	
Dittmar	Z	75'	6,531	6,531		2'-11'	6	Both	1988	
Dottie Jordan	L	75'	4,550	4,230	320	3'-11'	6	Both	1974	
Dove Springs	Rectangle	135'x75'	11,365	10,540	825	3'-8'10"	6	Both	1994	
Gillis	Rectangle	86'x40'	2,550	2,550		3'3"-8'		No	1954	1979
Givens	L	150'	11,920	10,700	1,220	3'-13'	2	Both	1958	
Govalle	Rectangle	65'x45'	2,400	2,400		3'-5'		Restrooms 125' away	1954	1986
Kennemer	L	75'	4,224	4,224		3'-9'6"	6	Restrooms	1975	
Martin	L	75'	4,880	4,880		2'-11'6"	6	Restrooms	1934	1977
Metz	Rectangle	105'x45'	3,992	3,992		3'6"-10'		Restrooms	1937	1986
Montopolis	L	25 m	4,880	4,880		2'-11'6"	1	Restrooms	1978	
Murchison	L	75'	4,224	4,224		3'-9'6"	6	Restrooms	1974	
Parque Zaragoza	Rectangle	45'x105'	3,992	3,992		3'4"-9'4"		Closed	1932	
Patterson	Rectangle	42'-62'	2,731	2,400	331	2'9"	5	Restrooms nearby	1954	
Ramsey	Rectangle	42'x105'	3,800	3,800		3'-8'	5	Restrooms	1941	1999
Reed	Rectangle	40'-65'	2,731	2,400	331	3'-4'6"	4	Restrooms	1956	
Rosewood	Rectangle	75'x130'	8,670	8,670		3'-10'6"		Restrooms downstairs	1932	2009
Shipe	Rectangle	42'x100'	5,250	4,000	1,250	3'-10'	4	Nearby	1934	
West Austin	Round	50'	1,500	1,500		4'	0	Restooms	1930	2011
Westenfield	Rectangle and fan	75'	4,393	3,067	1,326	0" - 7'	4	Both	1931	2013
Special Rental Facility										
Commons Ford Ranch	Rectangle		744	744		2' - 8'				
Splash Pads										
Bailey									1938	2009
Bartholomew									2010	
Chestnut									2005	

CURRENT POOL DESIGNATIONS	Shape	Length	Total Pool Square Feet	Main Pool Square Feet	Wading Pool S.F.	Depth (min-max)	Lanes	Changing Room / Restrooms	Year Built	Year Renovated
Clarksville (Mary Frances Baylor)									2010	
Eastwoods									1929	
Liz Carpenter										
Lott									2005	
Metz									1937	1998
Pease										2009
Ricky Guerrero										2009
Rosewood										2009
Wading Pools										
Little Stacy	Rectangle	53'x30'			1,500	9"-2'		No		1997
Shipe	Rectangle	25'x50'			1,250	8"-2'		Nearby	1934	1997
Waterfront Pools										
Barton Springs		200m				0'-14'			1929	

2.3.2 The Need for a Facility Assessment

Many of Austin's aquatic facilities were built between the 1930's and the 1950's with the most recent facilities built in the 1980's or early 1990's. The typical useful life intended for an aquatic facility is 30 years. Accordingly, many of these facilities have outlived their useful life by a tremendous amount. Pools built in the 1930's are nearly 80 years old, and those built in the 1950's are between 50 and 60 years old. Even the more recent ones built in the 1980's are 25 or more years old.

The Brandstetter Carroll Inc. Team (BCI) was chosen to prepare the Aquatic Facilities Needs Assessment to evaluate and provide recommendations for all of the City of Austin aquatic facilities with the exception of the splash pads, and the facilities at Bartholomew, Westenfield, Deep Eddy, and Barton Springs.

The Scope of Services for the project included the following seven phases:

1. Planning Context
2. Inventory and Analysis
3. Needs Assessment
4. Qualitative Assessment
5. Options
6. Goals, Objectives, and Recommendations
7. Recommendations for Each Pool

2.3.3 Demographic Analysis

The demographics of Austin are continuously changing and a detailed analysis was needed to identify the trends impacting the delivery of aquatic facilities and services. The Needs Assessment included a detailed review of demographics in Austin, which was updated and included in section 2.2 of this chapter. The demographics analysis also included the Social Needs and Conditions Analysis which is provided in Appendix B of this Master Plan.

2.3.4 A Publicly Driven Process

The Aquatic Assessment had two main public engagement goals: 1) to engage broad and diverse segments of Austin residents to identify aquatic issues, concerns, and ideas, and 2) to update the community on the assessment progress and based on current assessment status gather any additional input. The Aquatic Assessment met these goals through these primary methods of public engagement:

- Surveys collected 3003
- Public input meetings 8
- Open houses 2
- Telephone Town Hall 1

A summary of the public engagement results are included in Chapter 3 of this report.

2.3.5 The State of Aquatic Facilities in Austin

Two on-site assessment visits, addressing all aspects of the pool experience, were conducted for each of the 36 pools within the scope of this project: one between February and March, 2013 when most pools were empty of water and a second in August of 2013 when some pools were still in operation, and all were filled with water. The assessments addressed all aspects of the pool experience including: the water bodies, the parking lot, the bath houses, restroom buildings, and pump rooms and included cost information for the repair or renovation of the facilities. An estimate for the cost to keep each pool operating for a minimum of 10 years was also included. (Qualitative Assessment Forms for each pool are located in Appendix I of the Needs Assessment in a separate document.) Findings were provided within the following categories:

1. Pool conditions
2. The Virginia Graeme Baker (VGB) Act
3. Americans with Disabilities Act (ADA)
4. Bathhouse buildings and restrooms
5. Pump house buildings
6. Equipotential pool bonding
7. Pool decks
8. Wading pools adjacent to main pools
9. Electrical systems
10. Mechanical and Plumbing systems
11. Structural conditions

2.3.6 The Future of Aquatic Facilities in Austin

The qualitative assessment for each pool facility, combined with the desires of the community as outlined in the public engagement process through the statistically valid survey, web survey, Speak-Up Austin engagement, surveys at the pools, television town hall meeting, and the eight public workshops held previously, clearly identified a need to (see also Chapter 3):

- Increase the length of the swim season
- Provide additional shade
- Upgrade pool houses/bathhouses
- Improve restrooms

The Consultant was asked to produce a series of options describing potential changes to both operation procedures and the number of pools in the City of Austin, based on national trends.

This analysis included the following:

- Aquatic trends
- Code changes
- Potential funding mechanisms
- Alternative scenarios

2.3.7 Consultant's Recommendations

The Assessment concluded with a series of objectives and recommendations based on the public input and the qualitative assessment, which were primarily based on the status quo of facilities and operating procedures. The Assessment recommendations included:

- High Priority Objectives

- Long Term Objectives
- General Recommendations for all Pools
- Prototypical Pool Plans

2.3.8 Substantial Repair Needs

Many of the facilities are in need of substantial repairs. For example, Givens, which was constructed in 1958 (59 years old), was one of the seven (7) pools identified in the 2014 Needs Assessment as unlikely to survive 5 more years. The site needs extensive pool house improvements to meet ADA requirements as well as new plumbing and lighting. The wading pool requires the addition of zero depth entry access to meet ADA requirements. The pool wall has major cracks. The coping was replaced in 2013 but is already cracking, due to the structural wall cracks below. The pool decks need replacement. The guard chairs, ladders, lifts, etc. are not bonded, which was required after 1984, and could become a hazard if not addressed. Overall, this pool alone needs over $1.1 million (according to the Needs Assessment in 2014) to fix these issues and keep it open.

Many of Austin's pools are in similar condition to Givens. The 2014 Needs Assessment identified $47 million in improvements, just to repair/rebuild current infrastructure. That figure does not include upgrades or efforts to meet the needs of underserved areas.

Most of the facilities were built between 1927 and 1990 with an average age of over 50 years old. The typical useful life span of a standard pool is 25-30 years. As a result, many pools are physically and functionally obsolete (programmatically outdated). They do not have features and attractions that are popular with today's users, such as zero-depth entry, interactive play areas, slides, program space, and spray features. Additionally, many do not meet current health or accessibility guidelines or codes (e.g., restrooms and showers, health codes). Table 2.7 presents a summary of the issues needing addressed at each pool. (Bartholomew, Deep Eddy, and Westenfield were not part of the Needs Assessment so are not included in the table.)

2.3.9 Geographically Inefficient

Many areas are not served or are underserved, and many have overlapping service areas (see Figure 2.3). Many of the pools in Austin are located close to other pools, and many areas have no pools nearby. For example, few pools are located in the northern and southern portions of the city, while in the central part of the city, most notably east of I-35, several pools are located within a mile of another pool. Some of parts of the City are also served by "semi-public" pools (e.g., homeowners association pools) or other publicly accessible pools, while other areas are not. These pools (locations also shown in Figure 2.3) can help to meet the aquatic needs for some of these residents

2.3.10 Additional Aquatic Assessment Data

Additional analyses and documentation of the existing conditions at pools are included within the Criteria and Elements discussion in Chapter 7 (Site Suitability Ranking Process).

2.4 Current Aquatic System Status

Austin aquatic facilities have experienced high levels of use with approximately 1.25 million visiting pools annually, including 662,000 at municipal and neighborhood pools.

2.4.1 Existing Outdoor Aquatic Programs

The Austin Parks and Recreation Department hosts a wide variety of aquatic programs for youth, adults, and families. The following is a list of some of the programs offered by the City. Some of the programs are provided in partnership with other organizations as identified.

Swim Lessons

Swim lessons are provided at 16 Neighborhood or Municipal Pools. Classes are divided into nine sessions in 2016 from May 9 to August 12. Classes include:

- 16 years and older – 40 minute class

Figure 2.3: Existing Aquatic Service Areas with Underserved Areas

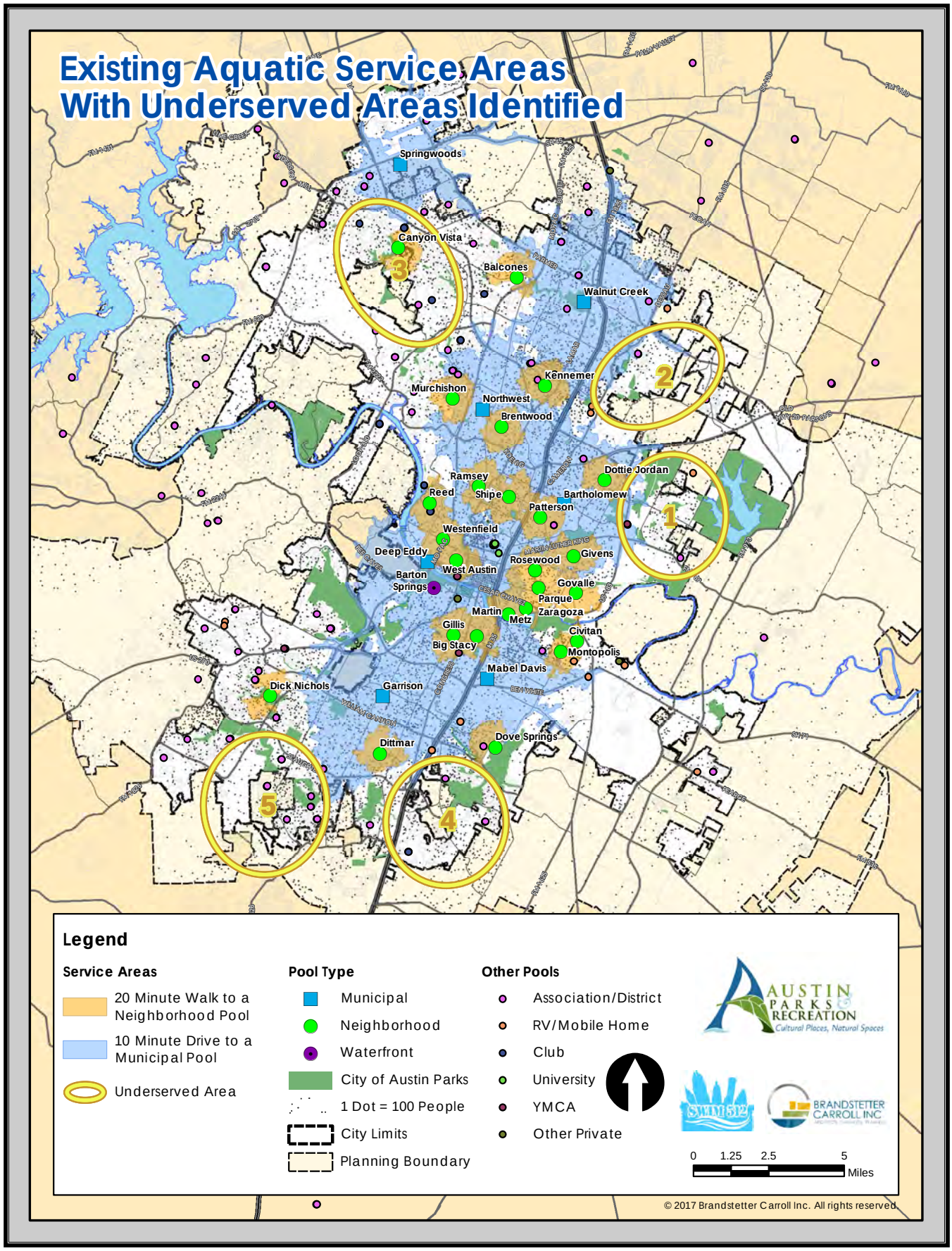


Table 2.7: Aquatic Facility Issues Summary

Issue	Balcones	Brentwood	Canyon Vista	Civitan	Commons Ford	Dick Nichols	Dittmar	Dottie Jordan	Dove Springs	Garrison	Gillis	Givens	Govalle	Kennemer	Mabel Davis	Martin	Metz	Montopolis	Murchison	Northwest	Parque Zaragoza	Patterson	Ramsey	Reed	Rosewood	Shipe	Shipe Wading	Spring Woods	Stacy	Stacy Wading P	Walnut Creek	West Austin
Architecture	3	3	1	2	2	2	2	1	4	4	3	4	3	2	4	4	1	3	1	1	1	3	4	2	1	1	1		3	2	2	1
Roof needs replacement						x			x	x	x	x			x							x	x						x		x	
Rusting doors/windows	x	x			x	x	x			x			x	x	x	x		x				x	x	x								
ADA deficiencies	x	x		x	x		x	x	x	x	x	x		x	x	x	x	x	x	x			x	x	x					x		
Paint	x								x			x	x		x	x							x						x			
Cracking walls									x	x		x																	x			
Restrooms Outside Fence		x														x		x											x		x	
Restrooms in Park (Bold, no restroom at all)			x	x							x		x								X	x				x	x			x		
Site	2	4	2	3	1	1	1	2	4	1	5	2	3	3	3		2	3	2	3	3	4	3	3	2	2	2	1	3	3	1	2
ADA Access	x	x	x	x	x		x	x	x	x	x	x	x	x			x		x	x	x	x	x	x	x	x			x	x		**x**
Pergolas / shade shelters issues		x	x	x								x		x	x			x	x	x		x		x				x				
Drainage issues	x					x		x	x		x		x		x		x	x		x	x	x	x		x				x		x	
Site Furnishings									x		x				x			x												x		
Fencing		x							x		x																					
No parking		x		x							x			x							x	x	x	x		x	x		x	x		x
Parking Lot Deteriorating													x																			
Pool	4	8	6	9	4	2	5	5	7	8	7	15	10	6	9	7	3	9	8	12	9	9	5	7	3	10	4	4	6	3	4	1
Pool deck cracking/uneven		x		x				x			x	x	x		x	x	x	x	x	x	x	x	x	x		x		x	x			
Deck joints poor		x		x			x	x	x	x	x	x		x	x	x	x	x		x	x	x	x			x	x		x	x	x	
Coping cracked/missing	x									x		x		x	x				x												x	
Warning/pool depth markers	x	x	x	x	x						x	x	x	x	x	x			x	x	x	x	x	x		x			x			
Paint flaking / Tiles missing		x		x	x	x	x		x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x			x		x	
Structural Wall Issues							x		x			x	x						x	x		x				x						
Pool Leaks			x									x	x					x		x	x					x						
Piping / Valves at End of Life										x	x	x			x	x		x	x	x												
Gutter to Waste				x									x											x		x						
Gutter Grating needs replacement			x						x															x					x			
Controller												x	x		x						x	x					x	x				
Flow Meter / Pressure Gauges	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Needs Backwash Holding Tank	x	x		x	x		x	x	x	x	x	x		x	x	x		x	x						x			x				
Wading Pool Needs Separate Filtration		x		x				x		x		x								x		x		x								
VGB																																
ADA Access (w for wading pool only)		w		w					w	w		w								w		w		w			w			w		
MEP	7	3	2	1	3	7	6	4	6	3	1	7	3	5	4	4	4	6	6	7	1	6	5	3	5	3	3	3	3	1	3	3
Piping rusted/damaged						x		x	x					x	x		x	x	x	x		x	x	x	x							x
Faucets not metered						x	x										x			x			x									x
Non-functional faucets/showers								x	x	x					x	x		x	x	x		x	x		x			x				
Leaking fixtures							x	x						x			x		x													
Drinking fountains not functional	x					x		x														x							x			x
Vent piping blocked						x						x																				
Poor flush valves, faucets, hardware	x											x																x				
No hot water / not working	x				x	x	x		x							x		x	x	x		x							x		x	

Issue	Balcones	Brentwood	Canyon Vista	Civitan	Commons Ford	Dick Nichols	Dittmar	Dottie Jordan	Dove Springs	Garrison	Gillis	Givens	Govalle	Kennemer	Mabel Davis	Martin	Metz	Montopolis	Murchison	Northwest	Parque Zaragoza	Patterson	Ramsey	Reed	Rosewood	Shipe	Shipe Wading	Spring Woods	Stacy	Stacy Wading P	Walnut Creek	West Austin
Exhaust fans poor										x		x		x		x		x	x	x		x		x					x			
Pump room has poor ventilation		x										x			x					x					x							
Pump disconnects too high											x	x																				
Corroded electric panels / switches	x	x	x		x	x	x		x	x		x	x	x	x	x	x	x	x	x		x		x	x						x	
No GFIC or GFIC near water	x			x	x	x	x						x													x	x		x		x	
Lighting needs relamped	x								x									x			x		x		x	x	x					
Panel access blocked																									x	x		x				
Unit heater in pump room on ground												x		x									x									
Rusting pump controls		x											x																			
Violations of NEC	x		x				x		x																							
Structural	2						2		1	2	2	5	1	2	2	2		1	1	3		3	1			3			1			2
Bath House	x						x					x		x	x								x									x
Pump Room	x						x			x	x	x			x	x				x						x						
Pool												x	x									x										
Pool Area, Deck										x	x	x				x		x		x		x				x						
Other Issues (Shade, Benches)									x			x		x					x	x		x				x			x			x
Total Issues	18	18	11	15	10	12	16	12	**22**	18	18	**33**	**20**	18	**22**	17	10	**22**	18	**26**	14	**25**	18	15	11	19	10	8	16	9	10	9

Pool Leaks are assigned a weight of '3', all others '1'

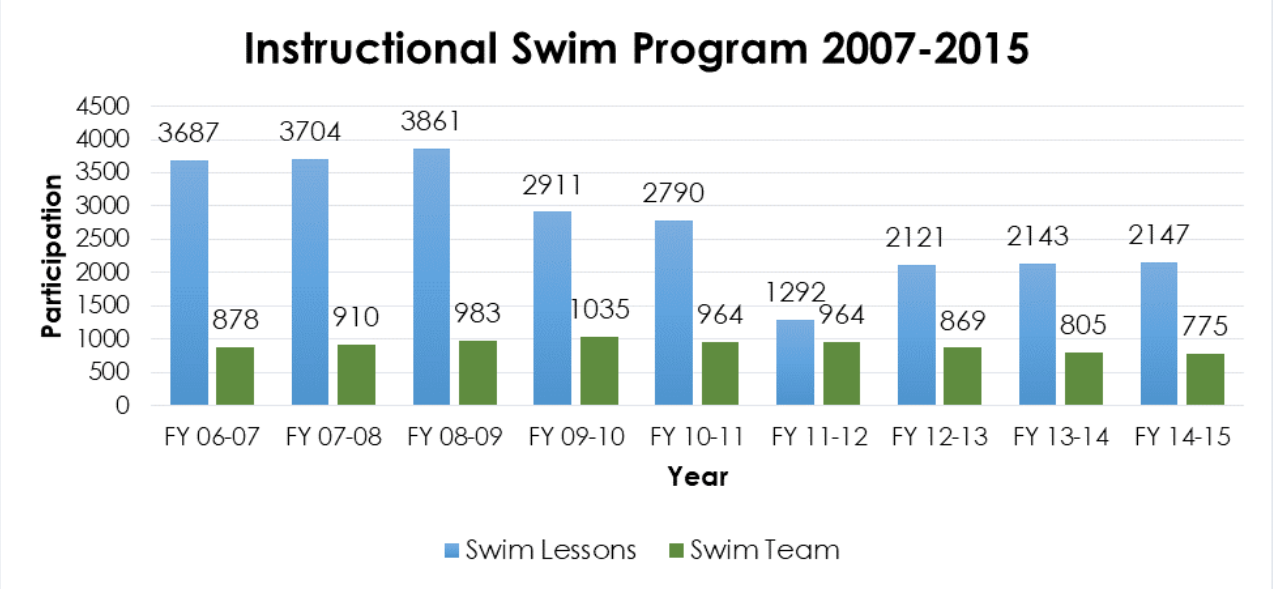
Pools Not Likely to Survive 5 Years

Bartholomew and Westenfield are not included because they are new pools.

- Adult Beginner
- Parent and Child Level 1-2 – Ages 6 months to 2 years-11 months
- Preschool Levels 1-3 – Ages 3-5-11 months
- Learn to Swim Level 1-6 – Ages 6-12
- Stroke Clinic – ages 10 and under and 11-17
- Fitness Swimmer – ages 16 and older (3 sites)
- Teen Swimmer (3 sites)
- Snorkeling – ages 8 and older (1 site)
- Junior Lifeguard – ages 11-14 (2 sites)
- SwimATX

Participation in the Instructional Swim Program has decreased since 2006 but has remained steady since 2012 (Figure 2.4). As might be expected, the most popular time for swim lessons has been in late June. Early July and early June period were next, followed by late July and early August. With fewer pools open, the numbers are significantly lower in spring. Sessions in late August and September were offered in previous years, but are currently not offered. The largest participation in the Instructional Swim Program is in the 3 to 5 year old age category, followed by the 6 to 16 year age category.

Figure 2.4: Instructional Swim Program Participation (2007 – 2015)



Recreational Swim Team Programs

Recreational Swim Team Programs are offered at18 locations for ages 5-17. Participation has remained steady since 2006 (see Figure 2.3).

Statesman Swim Safe for Austin Kids (7 sites)

Statesman Swim Safe for Austin Kids program is a non-profit addressing the critical need for accessible swimming instruction. These programs are programmed through eight recreation centers and are primarily aimed at East Austin children with limited resources from grades kindergarten through third grade.

Project Safe

Project Safe is a partnership of PARD, YMCA, and Colin's Hope. Teaches basic water safety, swimming skills, and physical fitness to first graders from an ASID School.

Deep Eddy Movie Nights

Deep Eddy Movie Nights are hosted on five evenings in July and August.

City of Austin PE Program for Employees (4 sites)

These programs were established to help City employees become the fittest workforce in the country.

Colin's Hope Project (5 sites)

Colin's Hope was formed in 2008 after 4-year-old Colin Holst tragically drowned in a private fitness facility pool, with lifeguards on duty and family members present. The non-profit's mission is to raise water safety awareness to prevent children from drowning. Their website identifies that their major programs/initiatives include:

- Creation and distribution of bilingual Water Safety information to families, schools, water parks, and youth based organizations.
- Sponsorship and co-coordination of a swim safety program for at-risk 4 year olds. This program includes swim lessons plus on land water safety education, and is conducted in partnership with the YMCA and Austin ISD.
- Global dissemination of water safety information in the form of our online Water Safety Quiz, and our Water Safety Tips & Layers of Protection.
- Hosting and/or participation in many community based health and safety events.
- Annual Water Safety Awareness ad campaigns featuring billboards and print ads each year from March-September.
- Helping stock life jacket loaner stations at local area lakes so that visitors can borrow and return a life jacket.

They are a preeminent community resource for water safety and drowning prevention information for media, hospitals, parents, schools and community-based organizations. They serve in leadership roles on local, state, and national water safety boards. They are founding members of the Families United to Prevent Drowning group.

SwimATX

SwimATX launched with a pilot program of 88 teens at Reagan High School and LBJ High School in January 2015. This new program is in partnership with Austin Independent School District and the City of Austin. Swim instruction took place during school hours at YMCA and City of Austin pools, and provide P.E. credit for the 88 teens participating in the first phase of this program. Upon completion of the program, teens received scholarships for free participation in Lifeguard Certification classes and guaranteed employment as Lifeguards with the City of Austin and the YMCA. The program remains active at Reagan HS and moved from LBJ HS to Eastside Memorial in January 2017.

Other Programs:

- Lifeguard Certification (8 sites)
- Masters Swim (2 sites)
- Water polo (4 sites)
- SwimATX (2 sites)
- Aqua Zumba (1 site)
- Aqua Yoga (2 sites)
- Special Olympics Swim Team

2.4.2 Pool Attendance

The overall average annual attendance of the pools (not including Barton Springs) over the 2002-2014 period was 743,905, with over 298,000 at the seven Municipal pools, nearly 434,000 at the 25 Neighborhood Pools, and just under 12,000 at the Wading Pools. Table 2.8 summarizes the totals and also indicates the high pool average (Deep Eddy for a Municipal Pool and Big Stacy for a Neighborhood Pool), and the low pool average (Mabel Davis for a Municipal Pool and West Austin for a Neighborhood Pool).

Table 2.9, Average Annual Attendance by Pool, illustrates the wide range of attendance at each of Austin's aquatic facilities. This table also illustrates the cost per participant, which is the cost to operate each pool (labor, chemicals, and utilities for 2014) divided by the number of participants (average annually between 2002-2014).

Table 2.8: Average Annual Attendance at Pools (2002-2014)

	Average Total	High Pool Average	Low Pool Average
Municipal Pools (7)	298,156	151,388	12,451
Neighborhood Pools (25)	433,883	56,191	2,568
Wading Pools (3)	11,866	7,535	3,738
Total	**743,905***		

Table 2.9: Average Annual Attendance and Cost Per Participant by Pool

Pool Name	Annual Attendance	Cost Per Participant
Municipal Pools		
Bartholomew	31,954	$1.31
Deep Eddy	151,388	$1.46
Garrison	26,090	$4.39
Mabel Davis	12,451	$11.12
Northwest (Beverly S. Sheffield)	55,509	$3.59
Springwoods	N/A	N/A
Walnut Creek	20,766	$5.74
Neighborhood Pools		
Balcones	20,293	$2.98
Big Stacy	66,854	$2.36
Brentwood	12,442	$2.38
Canyon Vista	10,849	$2.17
Civitan	4,262	$6.65
Dick Nichols	56,191	$2.12
Dittmar	31,029	$2.59
Dottie Jordan	16,839	$4.55
Dove Springs	29,149	$3.16
Gillis	5,115	$4.59
Givens	12,025	$8.68
Govalle	7,709	$4.66
Kealing	Closed	Closed
Kennemer	7,950	$2.94
Martin	11,812	$3.19

Pool Name	Annual Attendance	Cost Per Participant
Metz	17,376	$3.88
Montopolis	8,455	$5.01
Murchison	10,154	$4.08
Palm	Closed	Closed
Parque Zaragoza	6,813	$9.24
Patterson	9,027	$5.31
Ramsey	20,107	$1.53
Reed	12,112	$4.26
Rosewood	14,023	$2.70
Shipe	16,865	$4.40
St. John's	Closed	Closed
West Austin	2,568	$3.13
Westenfield	20,675	$2.28
Wading Pools		
Little Stacy	7,535	$2.09
Odom	Closed	Closed
Shipe Wading	3,738	$1.98
Waterfront Pools		
Barton Springs	468,260	$1.00

2.4.3 Annual Budget

The budget for the PARD Aquatic Division is allocated through the COA General Fund and allocated through Aquatic Administration, which divides the funds into four separate categories: Public Pools, Barton Springs Pool, Aquatic Maintenance, and Instructional Swim.

Admission

Admission fees provide revenue, the Department recommends a fee with is approved by City Council. Current fees are shown in Table 2.10.

Table 2.10: Admission Fees

Municipal Pools Daily Admission Pricing		
Age Group	**Resident**	**Non-Resident**
Children under 1 year	FREE	FREE
Child (ages 11 and under)	$1.00	$2.00
Junior (ages 12-17)	$2.00	$3.00
Adult (ages 18-61)	$3.00	$4.00
Senior (ages 62 and over)	$1.00	$2.00
Senior (ages 80 +)	FREE	NA
Veterans (Honorably Discharged)	FREE	NA
Deep Eddy and Barton Springs Daily Admission Pricing		
Age Group	**Resident**	**Non-Resident**
Children under 1 year	FREE	FREE
Child (ages 11 and under)	$1.00	$3.00
Junior (ages 12-17)	$2.00	$4.00

Adult (ages 18-61)	$3.00	$8.00
Senior (ages 62 and over)	$1.00	$4.00
Senior (ages 80 +)	FREE	NA
Veterans (Honorably Discharged)	FREE	NA

Season Swim Pass Pricing

Age Group	Resident	Non-Resident
Children under 1 year	FREE	FREE
Child (ages 11 and under)	$60	$90
Junior (ages 12-17)	$120	$150
Adult (ages 18-61)	$180	$270
Senior (ages 62 and over)	$60	$90
Family of 4	$350	$495
Punch Card ($40 value)	$34	$34
Senior (ages 80 +)	FREE	NA
Veterans (Honorably Discharged)	FREE	NA

Operating Budget

The following section discusses the annual operations costs of the aquatic system. Table 2.11 summarizes the overall operations budget and indicates that the City operates the pools at an annual average cost of approximately $6.365 million. All revenues go to the City's General Fund. These figures do not include the budget for Barton Springs because it is undergoing a separate planning process and is outside of the scope of this Master Plan. Barton Springs is also a unique facility that makes up a disproportionate proportion of the operating budget.

Table 2.11: Austin Aquatic Budget (Excluding Barton Springs)

		Personnel	Utilities/ Chemicals	Repairs	Maintenance	Supplies/ Services	Total	Percent of Total
2016	Public Pools	$2,795,682	$109,902	$2,031	$0	$98,077	$3,005,692	46%
	Instructional Swim	$205,983	$0	$0	$0	$39,044	$245,027	4%
	Maintenance	$668,487	$1,571,099	$161,685	$155,619	$88,624	$2,645,514	40%
	Administration	$646,415	$3,750	$0	$0	$44,206	$694,371	11%
		$4,316,567	$1,684,751	$163,716	$155,619	$269,951	**$6,590,604**	100%
		65%	26%	2%	2%	4%		100%
2017	Public Pools	$2,857,145	$252,958	$2,200	$0	$89,542	$3,201,845	50%
	Instructional Swim	$188,558	$0	$0	$0	$51,715	$240,273	4%
	Maintenance	$772,331	$1,200,500	$84,950	$79,171	$32,160	$2,169,112	34%
	Administration	$719,508	$25,882	$0	$0	$8,554	$753,944	12%
		$4,537,542	$1,479,340	$87,150	$79,171	$181,971	**$6,365,174**	100%
		71%	23%	1%	1%	3%		100%

Table 2.11 outlines the budgets for 2016 and 2017. Because they are integral to the operation of aquatic facilities and programs, personnel represents the largest percentage (71% for 2017) of the operating budget or $4.5 million of $6.36 million (not including Barton Springs). Only $2.1 million is used to cover maintenance, including $1.2 million for utilities, leaving little for the constant need for repairs due to the age of facilities. Table 2.12 below identifies the overall annual operations costs for the average, high and low pools within each category.

Table 2.12: Average Annual Operations Costs

	Average	High	Low
Municipal Pools	$135,588	$221,000	$114,000
Neighborhood Pools	$63,987	$158,000	$24,000
Wading Pools	$8,467	$11,700	$6,600
Splash Pads	$3,034	$9,200	$1,600

Table 2.9 indicates the cost per participant for each Austin pool. Table 2.13 provides an overall average for the costs per participant and the lowest example (Bartholomew for a Municipal Pool and Ramsey for a Neighborhood Pool) and the highest example (Mabel Davis for a Municipal Pool and Parque Zaragoza for a Neighborhood Pool). The ten pools with the lowest cost per participant over the 2002-2014 period are indicated in Table 2.14. In contrast, Table 2.15 below illustrates the ten pools with the highest cost per participant.

Table 2.13: Average Cost Per Participant

	Average	High	Low
Municipal Pools	$4.60	$11.12	$1.31
Neighborhood Pools	$3.95	$9.24	$1.53
Wading Pools	$2.04	$2.09	$1.98

Table 2.14: Top Ten Lowest Cost Per Participant Pools

Pool Name	Annual Attendance	Cost Per Participant
Bartholomew	31,954	$1.31
Deep Eddy	151,388	$1.46
Ramsey	20,107	$1.53
Shipe Wading	3,738	$1.98
Little Stacy	7,535	$2.09
Dick Nichols	56,191	$2.12
Canyon Vista	10,849	$2.17
Westenfield	20,675	$2.28
Big Stacy	66,854	$2.36
Brentwood	12,442	$2.38

Table 2.15: Top Ten Highest Cost Per Participant Pools

Pool Name	Annual Attendance	Cost Per Participant
Mabel Davis	12,451	$11.12
Parque Zaragoza	6,813	$9.24
Givens	12,025	$8.68
Civitan	4,262	$6.65
Walnut Creek	20,766	$5.74
Patterson	9,027	$5.31
Montopolis	8,455	$5.01
Govalle	7,709	$4.66
Gillis	5,115	$4.59
Dottie Jordan	16,839	$4.55

2.4.4 Capital Funding History

Over the past ten-years, the City of Austin has expended $29.2 million for capital projects related to the Aquatic system. The City authorized bonds for PARD park projects in 2006 with $18 million dedicated toward pools. Again, in 2012, the City authorized bonds for pools totaling approximately $5 million. Following the

completion of the Aquatic Needs Assessment, City Council allocated $6.2 million for the replacement of Shipe and Govalle Pools, which are currently being designed. Table 2.16 summarizes the capital funding.

Table 2.16: Ten Year Pool Capital Funding

Funding	Capital Allocation for Aquatics
2006 Bond	$18 million
2012 Bond	$5 million
2016 Council Allocation	$6 million
Total	**$29.2 million**

2.4.5 Maintenance Funding

The Aquatic Maintenance budget has been exceeded by an average of $400,000 per year over the past four years, resulting in reductions to other PARD programs/improvements. Mabel Davis did not open in 2017, due to losing 217,000 gallons of water in 24 hours. Bond funds from 2006 and 2012 were used to rectify code violations and to address environmental issues as well as for the development of Bartholomew Pool, Westenfield Pool, and improvements to Deep Eddy Pool. These improvements did not address major infrastructure needs. Additionally, new health mandates will require $477,000 in new expenses this year, including additional staff at the entrance to each pool to monitor entry points.

2.5 Aquatic Operations Observations and Analysis

2.5.1 Introduction

The following observations, analyses, and the corresponding recommendations in Chapter 8 are offered as tools to improve the current operation and to provide suggestions for workable solutions to increase customer satisfaction, increase participation by those currently underserved, to develop an even greater sense of ownership of Austin's aquatic venues, and to encourage support for the future of aquatics in the City. The concepts of sustainability and equitability have been considered throughout this operations analysis. This chapter addresses the topics of Lifeguard recruitment and retention, maintenance and operations, programming, partnerships, demographics, and marketing. Within each discussion, the challenges, successes and opportunities are presented. The specific recommendations based on these observations and analyses are included in Chapter 8.

2.5.2 Lifeguard Recruitment, Retention, and Training

In the summer of 2016, Austin's aquatic facilities were the subject of numerous news stories and articles when a number of Austin pools had delayed openings as a result of a lifeguard staffing challenge. Opening dates for some of the pools were staggered in spite of increasing the starting pay for lifeguards to $13.03 per hour in May 2017. Since November 2015, the Aquatic Division has been behind in their minimum staffing numbers even with Lifeguard Certification Training underway. This issue is not unique to Austin but, rather, represents a dilemma that many public pool operators are facing around the country.

To assist PARD Aquatic Division in meeting Lifeguard needs, the Austin Parks and Recreation Department, the YMCA of Austin, and the Austin Independent School District partnered to create the pilot program called SwimATX. Although the program did not result in a very large number of new recruits, it did assist PARD in reaching the 700-750 Lifeguards needed to accommodate the year round and seasonal program. Featured in Parks & Recreation Magazine in June 2016, the City of Austin was cited as an example of an exceptional partnership in the recruitment and training of Lifeguards that would reflect the diverse community that uses Austin's pools.

SwimATX offers a semester long swim class during the school day in which students can earn physical education class credit. Those involved receive free lifeguard certification classes, which upon completion, can lead to employment as lifeguards with the City or at the YMCA. Since 2015, SwimATX has met with some success with some students from the first class hired as lifeguards with the City in 2015. More students have since completed, received certification, and applied for positions.

In addition to the SwimATX program, Austin's Aquatic Division offers an exceptional Employee Recognition Program, including the Wooden Nickel System, the Luke Strabala Award, Staff Special Events, Staff Raffles, and an August Work Incentive Program.

The Recruitment Process of The PARD Aquatic Division is as comprehensive as any other in the country. School visits, Holiday Recruitment Events, Job Fairs, print and animated ads, radio station play, and social networking outreach strategies are embraced.

Why then is it such a struggle to recruit and retain lifeguards? With pay increases, recognition and reward programs, free training initiatives, and availability of work, Austin Aquatic Division struggles with meeting the minimum number of lifeguards needed. It is not always just about the money! There are several contributing factors that cannot be easily resolved and others that are worth considering for change.

Lifeguard Location Analysis

In response to the difficulty in hiring an adequate number of Lifeguards, the Consultants performed an analysis of the location of the overall population compared to the number of Lifeguards within areas of the City and separated the analysis by age groups of residents ages 15 to 19 and for all ages.

Figure 2.5, Potential Aquatic Staff Locations, shows the location of aquatic staff (age 19 and under) and Austin residents (age 19 and under). The darker red areas indicate a higher number of residents between 15 and 19 years of age within a census tract. This age range represents 76% of aquatic staff and 80% of lifeguards.

Figure 2.6, Staff by Aquatic District, shows the four aquatic districts and the location of aquatic staff. Staff under age 19 are shown in yellow, while other staff a shown in blue. The numbers of these staff are shown for each aquatic district in the legend (Staff 19 and Under/All Staff). This analysis indicates much higher numbers of staff coming from the North and South Districts, whereas the South Central and North Central Districts have much fewer staff but a higher concentration of pools.

Table 2.17, Population and Staff by Aquatic District, shows the percentage of the Austin population within each of the aquatic districts. Under population, the percentages are provided for all residents and for residents between the ages 15 and 19. The percentages are also provided for staff. For example, the North District represents 34% of the City population between age 15 and 19 but only 21% of staff between age 15 and 19. Some aquatic staff live outside of the City limits (23%). Of these staff, approximately 55% live to the north of the border between the North Central and South Central districts.

Table 2.17: Population and Staff by Aquatic District

Aquatic District	Population		Staff	
	All	15 to 19	All	15 to 19
North	41%	34%	21%	21%
North Central	16%	29%	22%	23%
South Central	9%	5%	11%	10%
South	34%	32%	46%	46%
Total	100%	100%	100%	100%

Table 2.18, Population and Staff within 1 Mile of City of Austin Pools, shows the number of residents age 15 to 19 living within a mile of a City of Austin pool (Neighborhood and Municipal Pools open as of 2016). The next column to the right shows the number of aquatic staff (age 15-19) living within a mile of these pools. The rightmost column shows the ratio of staff to population within these age range. A lower number in this column indicates a low hiring rate near that pool. The average for the 34 pools listed is 2.3%. A total of 362 aquatic staff (age 15-19) live within a mile of one of these pools or 41% of the staff in this age range. Some staff members live within a mile of more than one pool.

Figure 2.5: Aquatic Staff Locations

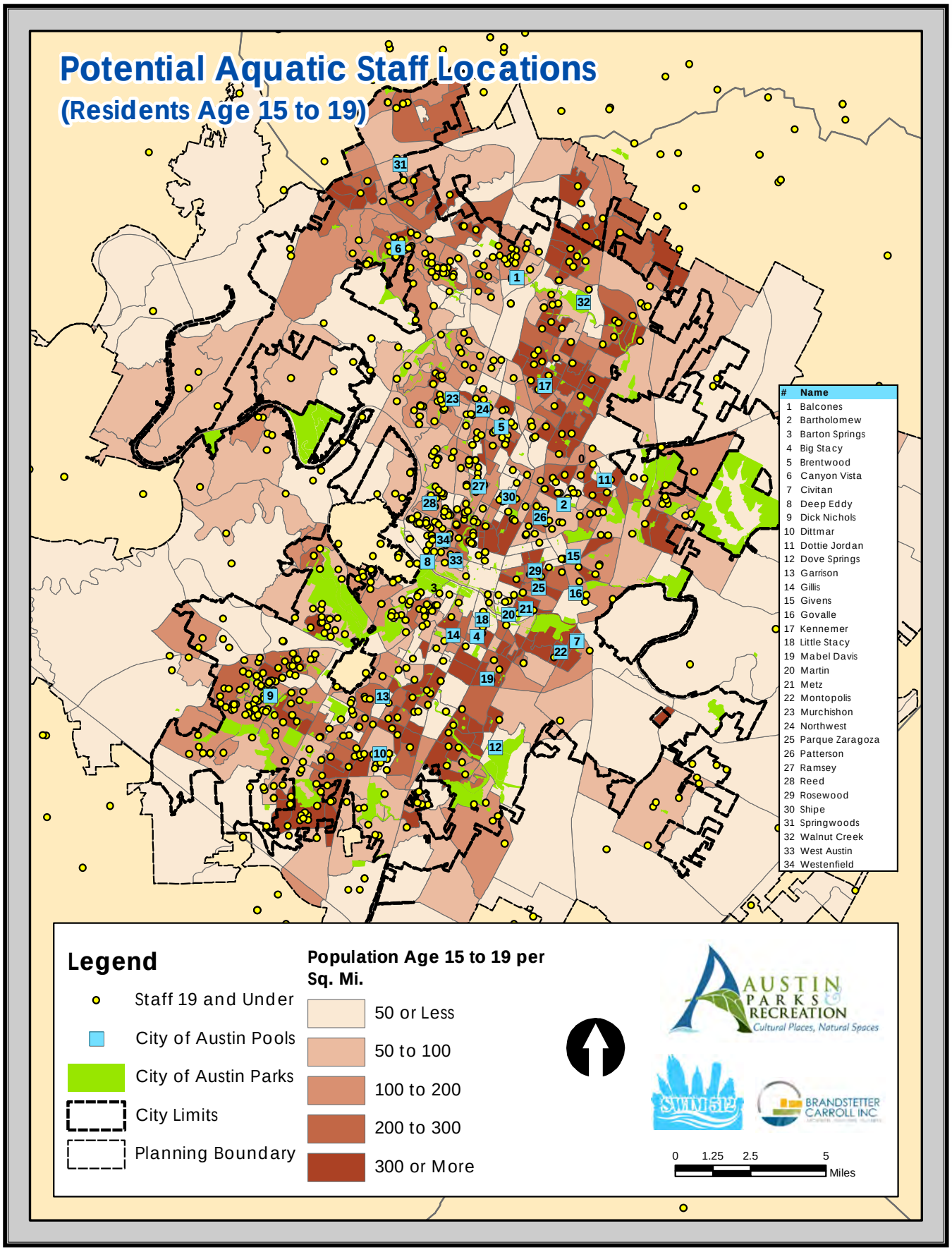


Figure 2.6: Staff by Aquatic District

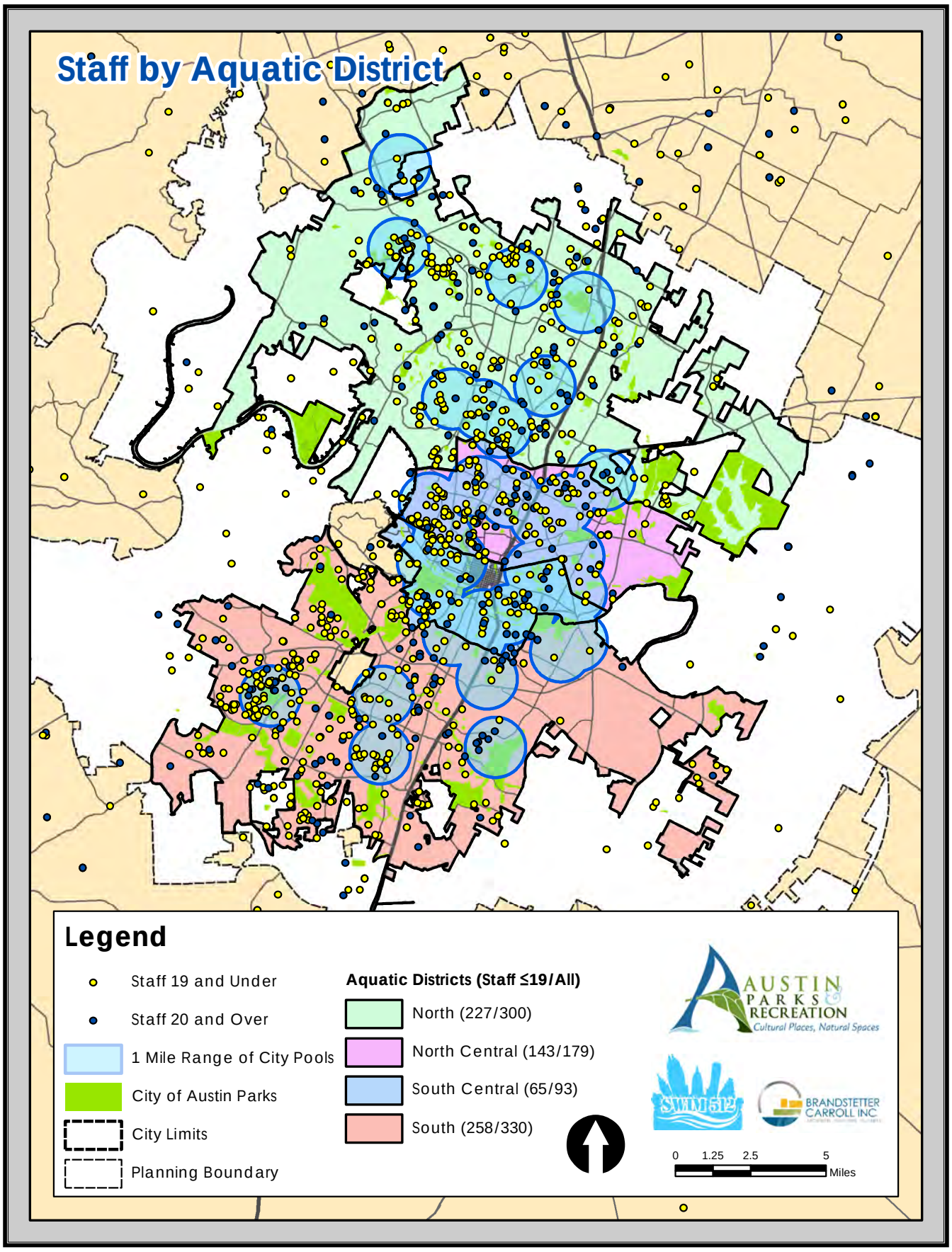


Table 2.18: Population and Staff Within 1 Mile of City of Austin Pools

Facility Name	Age 15-19			Population Age 15 or Over		
	Population within 1 Mile	# of Staff	Ratio Staff/Pop	Population within 1 Mile	# of Staff	Ratio Staff/Pop
Balcones Neighborhood Pool	501	19	3.8%	11,096	20	0.2%
Bartholomew Municipal Pool	676	21	3.1%	11,340	26	0.2%
Barton Springs Municipal Pool	323	20	6.2%	9,851	26	0.3%
Big Stacy Neighborhood Pool	1,624	7	0.4%	16,350	11	0.1%
Brentwood Neighborhood Pool	450	19	4.2%	12,169	25	0.2%
Canyon Vista Neighborhood Pool	811	16	2.0%	9,674	19	0.2%
Civitan Neighborhood Pool	1,209	2	0.2%	9,984	2	0.0%
Deep Eddy Municipal Pool	375	22	5.9%	8,062	24	0.3%
Dick Nichols Neighborhood Pool	789	41	5.2%	11,127	49	0.4%
Dittmar Neighborhood Pool	689	18	2.6%	10,710	23	0.2%
Dottie Jordan Neighborhood Pool	915	7	0.8%	11,356	11	0.1%
Dove Springs Neighborhood Pool	1,081	1	0.1%	9,837	7	0.1%
Garrison Municipal Pool	862	12	1.4%	14,135	13	0.1%
Gillis Neighborhood Pool	1,596	7	0.4%	17,606	9	0.1%
Givens Neighborhood Pool	810	9	1.1%	9,646	12	0.1%
Govalle Neighborhood Pool	602	6	1.0%	6,756	8	0.1%
Kennemer Neighborhood Pool	2,038	7	0.3%	22,365	14	0.1%
Little Stacy Wading Pool	632	13	2.1%	15,638	16	0.1%
Mabel Davis Municipal Pool	1,036	3	0.3%	9,505	9	0.1%
Martin Neighborhood Pool	828	18	2.2%	14,949	27	0.2%
Metz Neighborhood Pool	971	10	1.0%	12,885	17	0.1%
Montopolis Neighborhood Pool	1,536	2	0.1%	13,081	4	0.0%
Murchison Neighborhood Pool	614	20	3.3%	11,962	21	0.2%
Northwest Municipal Pool	537	18	3.4%	13,893	22	0.2%
Parque Zaragoza Neighborhood Pool	915	10	1.1%	11,094	17	0.2%
Patterson Neighborhood Pool	640	20	3.1%	13,611	23	0.2%
Ramsey Neighborhood Pool	529	24	4.5%	13,476	29	0.2%
Reed Neighborhood Pool	504	37	7.3%	6,314	39	0.6%
Rosewood Neighborhood Pool	918	8	0.9%	13,180	15	0.1%
Shipe Neighborhood Pool	716	17	2.4%	18,879	26	0.1%
Springwoods Municipal Pool	404	3	0.7%	7,037	5	0.1%
Walnut Creek Municipal Pool	269	2	0.7%	6,062	3	0.0%
West Austin Neighborhood Pool	1,831	21	1.1%	18,570	30	0.2%
Westenfield Neighborhood Pool	774	43	5.6%	14157	49	0.3%

Challenges

- **Working Conditions**

  Actual working conditions vary from facility to facility with many of the aging facilities lacking adequate restrooms, refrigerators, microwaves, break areas, ice or cold beverages, secure storage for valuables, shade and even shelter during rain events. Portable toilets may be an affordable solution but are unacceptable as an employment incentive. Some locations also lack office or staff spaces for storage for the protection of a Lifeguard's personal items.

  Some locations have no support staff such as a Deck Attendant or Gate Attendant to handle issues on deck or at point of entry. This type of assistance is especially important during emergency situations. In 2017, the Department of Health mandated this type of assistance at certain locations, leading to additional costs.

- **Pay Scale vs. Duties**

  In addition to the high level of responsibility of being a lifeguard at a public pool, staff is expected to perform general maintenance of the entire property, janitorial work in the bathhouses, inspections and related documentation, trash removal, water chemistry with reports, bather attendance, and more. This situation is especially challenging at "two lifeguard facilities" and represents a huge responsibility that requires not only a varied skill set and tolerance level. It is also a great deal to ask of young, temporary employees.

  Although the pay scale currently adopted may appear as an attractive wage, that wage may not be perceived to match the level of responsibility and risk associated with the expectations of the City. This perception, combined with the cost and time it takes to become a Certified Lifeguard, may reduce the attractiveness of Lifeguard as a seasonal job, compared to lower skilled job such as those in food service. Wages are often higher, and the stress level is lower.

- **Duties and Tasks**

  Many young employees have been raised in a "germ phobic" generation and, in many cases, have never had the responsibility for cleaning a facility much less aging public restrooms. When Lifeguards are expected to do routine janitorial work, that additional responsibility alone is enough to deter applicants. Although not unique to Austin, Lifeguards performing janitorial tasks is becoming less common around the country.

  The required maintenance and janitorial expectations associated with the Lifeguard position in Austin makes it difficult to maintain the profession of lifeguarding as one of prestige or a specialty with a possible full-time future in the system. It also makes the competition from other aquatic venues difficult to surpass.

- **Transportation**

  The number of facilities scattered throughout the system presents a challenge to giving employees hours in their neighborhoods, which then poses transportation issues for all employees, especially those not yet driving or without access to transportation. For example, limited hours are available in the north, which makes it challenging to keep staff that are not from south/south central parts of the City. The days of having enough trained and interested lifeguards or applicants that they can walk to work at their neighborhood pool have passed. Although, many pools are hiring a comparatively small percentage of the local 15-19 population, as noted previously in this chapter.

Potential applicants may only know the pools that they themselves have frequented, so those that do have Lifeguard certification may be reluctant to travel outside of their neighborhood. Applicants choose their own districts and may not want to go to an unfamiliar or another facility where they will have to discipline others outside of their neighborhood. They may also not have access to affordable and timely transportation to other locations. Younger applicants without a driver's license or access to a car may be able to bike to their neighborhood pool but not be able to reach other locations.

- **Scheduling**

  Lifeguards are scheduled for an 8 hour day with a two lifeguard minimum per facility. Although this shift helps with the complicated task of scheduling, it leaves very little flexibility for scheduling employees who need fewer or varied hours. An automated scheduling system would free up Aquatic Management Staff for other more pressing needs. Several free online scheduling programs are available that can help with this challenge. One of these programs was implemented by the Aquatic Division in 2017 but has had limited success.

  The City of Austin needs such a large number of lifeguards for their seasonal and year-round operation that it is understandable to want to cross train the entire safety team in order to be able to send them to different locations as needed. However, deep water training, and the requirement to retrieve a weight at the maximum depth in the aquatic inventory, limits the number of potential youth, adult, and senior employees, locations have only wading pools or shallow neighborhood pools. Applicants who may be highly effective at a wading pool or shallow water pool may not pass the current required training or conditioning requirements but could function quite well as a shallow water lifeguard. Incorporating

shallow water and other site specific training could allow Austin to train lifeguards for the wide variety of aquatic facilities and could help alleviate lifeguard shortages in some areas.

- **Training**

  The City has a lack of available indoor training facilities preseason. School schedules, a lack of hours, and a need for an indoor facility increase the difficulty of finding Instructor/Trainers, which in turn leads to large training classes that make learning and skill development more challenging. Smaller classes with more instruction and coaching could help applicants be more successful. Starting classes earlier in the spring could reduce stress on those offered in late spring.

  The City of Austin's Aquatic Staff Manual is one of the most comprehensive manuals in the country. That being said, digesting this manual can be overwhelming to many applicants due to the large number of facilities and the desire to cross train. This comment does not suggest that any changes be made to the manual but does suggest that the information be streamlined and perhaps be available through online videos and tutorials.

- **Hiring Process**

  The amount of paperwork to become a Lifeguard in Austin is cumbersome as it is for other major cities around the country. Part of this process requires the applicant to visit the Administration Office, which could be a transportation challenge for some. Improvements in this process have been made in 2017 with the goal of further streamlining the process.

  Although the City has adopted direct deposit for Lifeguard staff, the antiquated payroll system and Lag time Pay Schedule can also be confusing and turn off applicants. Automating time and attendance can be done in the newer, larger facilities but becomes more complicated at pools without internet access (and fiber/Wi-Fi). Time and attendance programs using cell phones are now available and could be helpful in minimizing the hours it takes to complete timesheets.

  Front Desk and Admissions Operations are the responsibility of the Aquatic Division. Currently, credit and debit cards cannot be used due to lack of Wi-Fi or internet connections, making makes cash management inefficient and causes customer service issues. Once the City of Austin adopts a city wide automated time and attendance program, Austin Aquatic Division will be able to incorporate it into their operations. Today's automated time and attendance programs can use both the finger print reader and cell phone app with GPS protection for clocking in and out. This automated process will not only improve accuracy for payroll but reduce the time it takes to process such a large payroll.

  Currently the most challenging pools to staff are those that are located on the east side of Austin. Because of the population growth of Austin, traffic has also increased making travel more difficult and time consuming, both East to West and North to South. Also, Lifeguards assigned to the older pools that are experiencing lower daily attendance numbers can cause Lifeguards to feel disenfranchised quickly, resulting in low retention levels. They often feel "alone" and may become bored and distracted.

  The Recruitment Process used by Austin Aquatic Division is ambitious and has been effective in finding applicants but the time needed to follow up and facilitate hiring has an impact on staff, resulting in dropout rate, low staff morale, and poor employee processing. Specialty training for those working at Barton Springs Pool and the North and North Central District facilities is required. For an applicant, this requirement may be seen as an additional training obligation and not be as attractive for a part-time or seasonal position.

Successes

- **Training**

  PARD Aquatic Division has an exceptional 2016 Aquatic Staff Manual that reinforces employee empowerment by providing the rules and regulations with the "reasons" and the "applicable codes" to help lifeguards communicate better with the visitors. The Staff Manual serves as a comprehensive guide to the "expectations" of the Aquatic Division and clearly exhibits the commitment to safety of visitors and employees. It is an exceptional operations guide that can be accessed when in need and anticipates the needs of the staff.

State required "In Service" by the PARD Aquatic Division provides a comprehensive and professional approach that has maximized performance. Lifeguard Audits conducted result in high average scores. The commitment to retraining those that do not meet the minimum standards of the audits is obvious.

- **Partnerships**

  The SwimATX program is an exceptional example of collaboration with area agencies for a common goal. Cooperative efforts with the University of Texas and other area aquatic services providers, both public and private are explored regularly. Recruiting and retaining a year-round lifeguard staff at these high numbers is a remarkable feat, even if they do not meet the minimum goal. Other cities around the US struggle to reach much lower numbers.

  The Austin Aquatic Management Team is a gifted and committed team of civil servants with a shared mission of excellence under very difficult conditions. The team shares a "service" mentality and a "No Compromise" attitude on safety. With great leadership, a culture of safety prevails. The Aquatic Staff is not only open to suggestions but thrives in responding to them.

  Reviewing the historical data kept on Aquatic Incidents, exhibits an exceptional percentage of incidents vs. attendance. A record of less than 428 total incidents is remarkable with over 1 million visitors annually. Statistics do indicate that Barton Springs has the highest rate of incidents, perhaps due to the natural environment (and high attendance), while Bartholomew shows the next highest level of incident, perhaps due to the volume of visitors at this newer facility.

Opportunities

- **Staffing**

  The example set by SwimATX has set the stage for future collaborative ventures and partnerships to assist the Aquatic Division meet their staffing goals. Additionally, facilities that have Full-Time Head Lifeguards have proven to score higher on audits. Hiring of more Full-Time Head Lifeguards will enable every aquatic facility to be managed with a higher level of professionalism.

  Improvements to Austin aquatic facilities as explored in this plan will make PARD Aquatic Division a more attractive employer. The possible reduction in the number of aquatic facilities will also make recruitment, retention, and training more successful. Affordable and accessible technology may provide assistance with scheduling and payroll, making staff time more efficient, freeing up their time for more vital tasks, and serving as an incentive for employees.

  Communicating information such a large, seasonal staff is nearly impossible but imperative. Communication does occur at In Service Trainings, but a more efficient method would be the use of technology or even social networking platforms to disseminated information. Programs such as Power DMS can be accessed from home computers and cell phones to communicate with the staff and document receipt of the information.

  The greatest assets for promoting improvement opportunities are the obvious support of aquatic programs by the residents of Austin and the City's aquatic legacy. Turning this support into advocacy for change and funding is the true opportunity. The result of SWIM512 coupled with the support of the community is the greatest opportunity to recharge the PARD Aquatic Division.

  The Aquatic Management Staff must continue to be involved and their input respected throughout this process. As the Aquatic Master Plan is implemented, each new or renovated facility should be equipped with internet capabilities (Wi-Fi and fiber) in order to take advantage of online attendance programs and water chemistry control systems available now and in the future.

2.5.3 Aquatic Maintenance: Challenges, Successes, Opportunities and Needs

One of the driving factors behind the SWIM512 process is the aging of the aquatic inventory in the City of Austin and the closure of several of the facilities due to age, maintenance concerns and mechanical issues. The public has an expectation that all facilities should remain open regardless of their physical condition, aquatic budget, or shrinking attendance because of their passion for swimming. This passion is without the

knowledge and understanding of the issues of reported code, health and accessibility requirements, the cost of maintenance and the age of many of the facilities. Also, the number of locations, the diversity of the pool designs and mechanical systems, and the need for constant upkeep and improvement present a challenge to the staff members charged with these responsibilities. The Aquatic Maintenance Staff is responsible for preventative and routine maintenance as well as emergency repairs. Many of the facilities are over 50 years of age and now have outlived their practical lives.

Challenges

- In 2013, an aquatic assessment was undertaken by the Aquatic Division, which included public workshops and surveys in consultation with the firm of Brandstetter Carroll Inc. The assessment identified seven critical pools that were in danger of functionally failing withing the next five years.
- In 2014, Aquatic Maintenance was allocated two new Full-Time Aquatic Swimming Pool Mechanic II positions. In spite of these two new positions, there is still a labor gap between need and an ability to respond.
- Two major projects were completed in 2014: Bartholomew and Westenfield pools. New facilities carry with them new maintenance concerns and needs, as well as time to acclimate to the new mechanical systems.
- Maintenance of an aquatic facility inventory of this size and age is a year-round operation even for those facilities not open during the winter months.
- Staggered openings of the pools met with resident complaints in 2015, 2016, and 2017 but were necessary due to the complexity of the requirements to meet even a phased opening timeline.
- Most of the existing facilities were built between 1927 and 1990, representing different generations of mechanical systems, and many products which are no longer available. A large number of parts in the inventory require time consuming fabrication and parts are not standardized.
- Some pools require painting annually, which depends on weather in order to complete on time.
- Like many urban aquatic facilities, Austin does experience issues with trash, bottles, plastic, and tree debris.
- Many of the older pools were not designed with maintenance best practices in mind and lack practical items like hose bibs, chemical controllers that are difficult to reach, and outdated electrical systems.
- Many of the facilities do not meet the current health, safety and accessibility codes such as the requirement for showers, restrooms, ADA improvements and ease of accessibility. Some of the facilities are non-compliant to recent environmental and OSHA guidelines as well.
- The Maintenance Division is underfunded for preventative maintenance in spite of the growing need for it. In the last 3 years, between $2 million and $2.6 million was allocated in the budget for maintenance with over half allocated to utilities and chemicals. Over the past four years, the Maintenance budget was exceeded by an average of over $400,000 per year, primarily due to repairs of aging facilities.
- Because of the age diversity of the aquatic facilities, there is no continuity of mechanical standards. With each design firm or builder used, the mechanical systems vary making it extremely difficult to stock shelves and be prepared for quick replacement of damaged equipment.
- Maintenance should be an integral part of each design plan and be involved in the preparation of the specifications for equipment.
- As the facilities age, the cost of operations is constantly increasing.
- A lag time between a service request and action taken often causes an early closing or late opening.
- There is no true supply inventory and there are definite disconnects between the need for materials in a timely fashion and procurement policies and procedures. In maintaining aging pools without backup supplies, a motor issue could result in a pool closing for days or even weeks.
- The Barton Springs and Deep Eddy facilities are celebrated as unique and special, however the environmental issues related to their operation make them challenging and labor intensive to maintain.
- Continuity of maintenance is a real issue as many of the seasonal facilities have Head Lifeguards/ Managers who are temporary employees and change very often. Keeping the lines of communication

open, consistent and meaningful is difficult under those conditions. If there were more Full-Time Head Lifeguards, the relationship between Aquatic Operations and Aquatic Maintenance could be more productive.

- The pool facilities that do have buildings associated with Aquatic operation are also aging and many need upgrades to reduce daily maintenance and to conform to meet current codes.
- The general public and key decision makers may not truly understand the difficulty of maintaining older facilities. They may have the perception that a facility has no problems if water in the pool appears clear.
- As the Aquatic Master Plan is implemented and new facilities are developed or improved, Wi-Fi and internet capabilities should be included for water chemistry controls, cash management, and customer use.

Successes

- After visiting those facilities open for the 2016 season, the Consultant was impressed to see how well maintained the facilities were in spite of the age and condition. It is clear that the staff has done their very best under difficult circumstances.
- Those team members responsible for the maintenance and upkeep of these facilities share the No Compromise on Safety mantra of the Aquatic Division.
- The Maintenance Division, although responsible for facilities by area, has shown sincere interest beyond their actual area and look to other team members for advice and assistance.
- The level of knowledge and expertise of the Aquatic Maintenance Division is evident in their ability to understand the mechanical operations of so many different operating systems.
- The Aquatic Maintenance Division is embracing the SWIM512 experience, and they recognize the need for improvements in the maintenance function.

Opportunities

- Active participation in the SWIM512 efforts will assist the residents and City officials to mutually understand the true needs of the Aquatic Maintenance Division and the scope of their work.
- The Aquatic Maintenance Division should have an opportunity to participate in the planning of the new facilities and the renovation of those that remain. Their practical knowledge will be helpful to the design team.

2.5.4 Aquatic Programming

The City of Austin offers a wide variety of aquatic programs and special events that have had a very positive impact on those that are involved. The largest programs by registration include Swim Lessons and Swim Teams. Program registration is available online; however, mail, fax and in-person registration is allowed if space is available. Scholarships are available utilizing the Federal Free and Reduced Lunch criteria.

A comprehensive catalogue of offerings is published annually, and the information is readily available online. Swim lessons for infants through adults are offered at 15 sites throughout the City (as noted previously in this chapter). Swim lessons meet from Monday through Friday for two weeks with the exception of each facility's weekly Non-Programming Day or otherwise noted. Five sessions of swim instruction are offered during the summer from June to August with the addition of a Spring Session held in May.

Swim Teams are another one of the successful programs offered serving children 5-17 years of age. The recreational swim team program is intended to develop potential and teach children about the sport of competitive swimming. Other programs offered include a summer Water Polo program for boys and girls of all levels of experience, ages 7 and older. This program is run by the Austin Water Polo Club, a non-profit organization. Aqua Yoga is a unique program offering for a public pool which combines balance, breath work, and stretching and yoga postures. Both programs are offered through a co-operative agreement.

Providing lap swimming time and the encouragement of fitness swimming is a large part of the aquatic programming offering including a Special Olympics Swim Team and a Masters Swim Program. Additionally, the Junior Lifeguard program is offered to the general public and serves as a recruitment tool for employment with the Aquatic Division. Pool rentals are also available for the public, and childcare and camp programs can register onsite. Poolside Movie Nights are offered at Deep Eddy.

Sustainability in Aquatic Programming

The following aquatic programming concepts could be employed to meet the definition of sustainability from the City of Austin, Office of Sustainability.

- Provide facilities that are conducive to hosting a variety of programs to meet various user needs
- Provide indoor year-round facilities for training, fitness and programming
- Provide unique and trending programming opportunities to attract new customers not traditionally served and reflects growing population demographics
- Utilize partnerships to promote water safety program and enhance outreach with minimal impact on the bottom line
- Utilize online platforms for time and attendance, training and communications
- Instill the value of aquatic opportunities in future generations through youth programs and community engagement

Challenges

- The number of Learn to Swim programs is too extensive to manage well and a majority of them are canceled due to lack of registration.
- Parents have a hard time identifying the right level class to register their children.
- Although financial aid is offered for Learn to Swim programs, Aquatic Staff report challenges is getting the information to children to attend and finish the programs.
- Non-swimming parents may not understand the swim levels as they themselves have no swim experience.
- Over the past 8 years, the number of Learn to Swim classes has fluctuated in the number offered and the number of classes actually taken. Since 2010, the number of classes actually attended has dropped considerably.
- The Spring Session and Session Six show smaller attendance historically.
- Getting information out to parents about the availability of lessons has been challenging.
- Having enough Water Safety Instructors is always a challenge. Staff have indicated that at least four more WSI's are needed. Recruitment and retention is also a problem as reported by staff.
- Scheduling is also challenging having to carefully monitor the number of hours worked and the qualifications/certifications needed at each location.
- Pool Rentals are not automated and can be time consuming for staff.

Successes

- A chart was created to assist parents in choosing the correct swim level for their child. It helps to navigate the Learn to Swim programs.
- Several very positive collaborations are providing aquatic programs, including the Statesman Swim Safe for Austin's Kids, Project Safe with the YMCA and Colin's Hope, Austin Water Polo, Special

Olympics, Austin Public Schools and Austin Aqua Yoga.

- Over 2,000 students were served in the Learn to Swim Program, and close to 800 participated in the Swim Teams in 2016.
- Although Swim Team participation has shown some decline since 2009, it appears to have remained steady since 2011.
- The Learn to Swim program is well priced for the area and provides financial aid opportunities.
- Swim Teams are often a training ground for future lifeguards and employees. The success of the recreational swim team program can serve as a future recruitment tool.

Opportunities

- With the SWIM512 process and the vision of the City to renovate and add new aquatic facilities, the input about the need for more "teachable, swimmable" water in the new or renovated facilities will be valuable.
- The success experienced with collaborative efforts such as SwimATX could serve to encourage new and creative cooperative efforts.
- Should the City pursue the concept of an Indoor Aquatic Center, attendance in year-round training, lifeguard and swim instruction will increase.
- Should the overall number of aquatic locations decrease, the emphasis on programming could be less about quantities of programming needs at many locations and more about offering quality programs at fewer facilities. Staffing these programs would be more easily accomplished.
- Drowning statistics for minority children are growing in the United States. Collaborations with organizations like Colin's Hope, coupled with efforts from PARD Aquatic Division, Austin Fire Department, and Austin-Travis County EMS, not only emphasizes the need for Learn to Swim programs but also elevate the public awareness of this tragic statistic and create a political environment for support of public pools and instruction. Model programs in Arizona and throughout the Southwest have proven successful and have received recognition nationwide.

2.5.5 Additional Operations Considerations

The population of Austin continues to grow with Austin's reputation as a great American city and one of the country's best places to live. With over 1 million visitors in the past two years, the most important statistic is the safety record of fewer than 400 aquatic incidents per year. This statistic alone shows the dedication to safety that the Aquatic Division holds dear. However, since 2011, the annual attendance at the City's pools and the participation in the most popular programs of Learn to Swim and Swim Teams continues to decrease. During this period, the cost of the operation of these facilities increased and the revenue recovery decreased. No one reason explains the decline in attendance. One major issue is the aging of most of the City's aquatic facilities. This issue has been explored throughout the Master Plan process and is defined at the beginning of this chapter.

An examination of the current population trends and predictions for Austin's future population projections can help to find solutions to the Aquatic Division's concerns. Statistics show that the average household size for residents in Austin rose from 1990-2000 and is expected to remain steady into 2017. The Median Age will continue to rise in Austin to 31.6, and the proportion of residents over the age of 65 is expected to rise to 8.5% by 2017. On the opposite extreme, the population under age 19 will decrease in Austin to 25%.

Other statistics that relate to a decrease in participation in aquatic programs include the numbers of children in households in the urban core, which is declining in Austin. US Census data also shows the growth rate of Latino and Asian households far exceeds that of Anglo households in Austin. These changes in demographics certainly contribute to the participation, revenue, and attendance issues discussed in this plan. These changes must be considered when programming, marketing, and operating aquatic facilities and programs. They are

not the only contributing factor but certainly must be considered when planning for the future support of aquatic opportunities in Austin.

Marketing

Marketing and promotional materials need to reach minority families in Austin. The current materials are attractive, comprehensive, and produced in both English and Spanish, but it is unclear whether there promotional pieces are reaching those that are underserved. Working with area social service groups, community organizations, churches, and social clubs on a grass roots level may be more effective with new and emerging minority groups. The SWIM512 process has been a good start at this outreach. Distribution of promotional materials on swimming lesson and drowning prevention programs through childcare, after school programs, and the schools could increase exposure to the opportunities offered.

Based on the aging demographics of Austin, the creation of programming targeted to active adults age 50 and older will encourage interest and increase their support of funding for City aquatic facilities. Programs such as Senior Water Aerobics, Post Mastectomy Aqua Classes, Kayaking, Paddleboarding, balance and strength screenings programs will likely be of interest to this population. Although some of the current facilities cannot accommodate these activities, many facilities citywide can provide these types of program offerings.

Young adults without children are often overlooked in aquatic programming. Special events social opportunities, such as the movies at Deep Eddy and others, could attract one of the largest growing populations of Austin. Often this group is not served until they have children of their own. Fitness, training programs, paddleboard, and other active aquatic programming like wall climbing can accomplish this goal.

The Austin Aquatic Division already has exhibited an interest in collaboration with other agencies. Creative partnerships with hospitals, health insurance companies, medical groups, and non-profit organizations should become the focus of all new programming concepts. Should the City move toward a year-round indoor facility, this type of venue is very suitable for partnerships with hospitals, physical therapy centers, and fitness centers. Aquatic facilities across the country have had very positive results with renting time to physical therapy centers and sports and fitness providers by providing rental or leased times when the facility is not otherwise busy. Teaming aquatic facilities with health initiatives already in place in the community can be a win for PARD.

Corporate Sponsorships and Naming Rights to fund existing aquatic facilities should be explored. Due to aging facilities in danger of closing due to the need for costly repairs, creating an "adoption" plan by Austin's corporate community with or without naming rights should be considered. These partnerships would be financially based with fees associated for either support of current programs or capital initiatives. Both approaches would net savings to the department for operations or capital investment.

Throughout the public process, a concern has been expressed about accessibility of public pools for those most in need if admissions are increased to help to cover rising costs. Civic organizations, fraternal organizations, and businesses could purchase tickets for children in need and distribute them to schools, churches, Boys & Girls Clubs, and other civic organizations. Companies that purchase the tickets can have their logo on the tickets or receive other suitable recognition.

Creating, selling, and executing a successful Naming & Sponsorship Campaign can be time consuming for an already overburdened staff. Creative approaches to this type of campaign have included working with area Public Relations and Advertising Agencies on a commission basis and have been very positive.

Marketing of any proposed new facilities in Austin must focus on the education of the community on the terminology and definitions of today's family aquatic centers. Lack of understanding of terms, such as "zero depth entry" and "lazy river" and the benefits they bring to a facility, could confuse and cause concern from those that view aquatic facilities in a more traditional sense. Education on the many benefits of "zero depth entry," including access for the disabled and promotion of family interaction, should be explained in text and photos to garner support.

Austin is a community that values swimming. A major public relations campaign with an outreach and teaching component can be highly effective in developing support in the community. This effort could be a continuation of outreach from SWIM512 and this Master Plan. Using the exposure of the SWIM512 process, a marketing and promotional campaign should be created to excite Austin and its residents about aquatic opportunities. A mascot, tag line, promotional items, radio, TV, and a social networking campaign are needed to infuse excitement and encourage the emergence of a new generation of swimmers.

Demographics

A disconnect exists between mature lap swimmers' needs and the aquatic needs of young families and young teens. Lap swimmers, interested in their needs for fitness swimming, do not have to be at odds with families seeking the new Community Pool or Regional Family Aquatic Center concepts. Today's aquatic designs can accommodate all interest groups. Serious lap and fitness swimmers are focused on the need for lap lanes that are always available to them. Less than 10% of those that visit a modern day aquatic center are lap swimmers; however, they tend to be very vocal about their needs. They tend to have a traditional sense of what aquatic facilities should provide and are less inclined to support modern amenities such as zero depth entrance and slides for fear of losing lap swimming time.

In marketing to adults, active adults and seniors, a focus on health and longevity has proven successful in the fitness industry. Combining yoga, tai chi, and other fitness activities on pool decks with aquatic components is especially attractive to these demographics.

One issue that makes it difficult for a child to go to an Austin pool is the age and supervision requirement. Although this rule is made with the safety of the child in mind, it could also keep a child from being able to use a pool without an older sibling or parent along with them. The current rule is, "All children under the age of 10 must be actively supervised by someone that is age 15 or older." This rule makes participation challenging for families with both parents working.

The hours and days that Learn to Swim programs are offered should be reexamined to meet the needs of working parents. Adjusting schedules to accommodate weekend and evening classes could result in increased participation.

All children between the ages of 10 and 14 must take a swim test if they do not have supervision. Austin Aquatic Division should consider providing free life vests at pools for children who cannot pass the swim test, for use until they can develop the skills needed to pass the test. This policy, incorporated with swim testing and Learn to Swim programs, can increase the number of children that visit the pools. Use of Coast Guard Approved Life Vests does not hinder the desire to learn to swim but can provide confidence and enjoyment that will in turn encourage the desire to learn to swim. This strategy has been effective in other urban areas.

A world class indoor aquatic facility would certainly make Austin a destination for excellence in aquatic facilities and programs. It could attract teams from throughout the region and have a positive impact on the economic life of Austin. The most popular amenities that will serve Austin's changing demographics should be considered as part the design of this facility. The latest technology needed for competitions, diving, water polo, synchronized swimming, wall climbing, log rolling, kayaking, and surfing would help attract customers.

Partnerships

U.S. Coast Guard Approved Life Vests could be sponsored by local hospitals, doctors and fraternal orders such as the Elks, etc. and could be printed with logos. Pools that provide these free Life Vests have seen a large decrease in the number of assists and rescues and an increase in participation by younger, inexperienced swimmers.

According to Recreation Management's 2017 State of the Industry Report, the number one planned program addition for public aquatic facilities is Special Needs Aquatic Programs. These programs are continuing to grow throughout the US. They have great potential for partnerships with local organizations that support special needs programming and also represent great grant potential from both government sources and non-profit partnerships.

Statesman Swim Safe for Austin Kids is a great example of a partnership that has increased the accessibility and equity of swim instruction for children in need. This type of partnerships could add more program offerings without increasing the operating budget.

The City of Austin could work with private business to develop aquatic centers, including an indoor facility, by providing tax incentives, land leases, and other public/private partnerships with organizations such as USA Swimming. Naming and sponsorships of such a property could be attainable based on the industries currently thriving in Austin,

2.6 Health, Safety, Welfare, Environmental, and Regulatory Conditions

The discussion of the existing health, safety, welfare, environmental and regulatory conditions is critical to the development of recommendations and implementation of the Master Plan. The Master Plan Team needed a thorough understanding of the issues and constraints toward development and operations in order to develop realistic implementation recommendations. This section also provides a summary of recommendations for each issue.

2.6.1 Introduction

This section provides a qualitative discussion of the health, safety, welfare, environmental, and regulatory issues related to City of Austin pool sites and operations. This section also provides a summary of recommendations for each issue. This section supplements the results of the Appendix I "Qualitative Analysis" of the Aquatic Facilities Needs Assessment and provides more detailed definition of many elements of the criteria included in the Site Suitability Ranking Process (Chapter 7).

Portions of this section are based upon interviews with members of the Aquatic Master Plan Technical Advisory Group representing the City of Austin Office of Sustainability, Watershed Protection, and the Planning and Zoning Department as well as a general contractor familiar with design and development practices in Austin.

2.6.2 Regulatory and Environmental Constraints

The scope of the work and program for each pool facility will need to be verified and refined during further phases as they are redeveloped or renovated, but for the purposes of this study, the text will discuss the issues in general terms with a few specific examples.

The redevelopment of the pools will be constrained by the following requirements, code and development regulations and ordinances. Topics are discussed here in relation to their impact on regulatory constraints. Some of these issues are discussed in more detail in later portions of this chapter.

- Austin's Zoning and Site Development Permitting Regulations
- Stormwater Management Regulations
- Texas Health and Safety Code Section 341
- Sub-Chapter E Commercial Design Standards (Land Development Code)
- Sub-Chapter L Standards for Public Pools and Spas (Texas Administrative Code, Title 25, Chapter 265)
- Utility Services Availability
- Accessibility and Emergency Access
- Parking Requirements
- Applicable Codes
- LEED Certification and/ or Sustainability Goals

Zoning and Site Development Permitting Regulations:

Typically, the City of Austin zones its park property as "P" Public. This zoning category requires a conditional use permit and triggers compatibility for a 100' distance inside of the property line, which then requires the development to utilize the development constraints from the adjacent zoning category. Being sited near

residential (SF-3) or other restrictive zoning will limit the ability to redevelop parking or structures close to adjacent property lines, constrain the height or limit the impervious cover allowed.

All of the existing pool sites assessed are either zoned "P" Public, "P-NP (Public-Neighborhood Plan), SF-3 (Single Family) or "UNZ" (Unzoned) or a combination of all of these. Only 2 pools are "HD" located in a Historic District. When the pools and facilities may be redeveloped or renovated, the City will probably elect to rezone any properties zoned "SF-3" or "UNZ" to "P" zoning. Under the rezoning, any "NP" or "HD" designation will remain part of the zoning category.

Pools tend to be located in parks which often consist of land that is unsuitable or difficult to develop for a higher use (commercial or residential). Therefore, the pool properties often have multiple regulatory and environmental constraints.

Floodplain Regulations

Out of the 34 pools in the assessment: two (2) are in the Austin Fully Developed Floodway, eight (8) are located in a FEMA Floodplain (3 in the 100-year floodplain and 5 in the 500-year floodplain), and three (3) are in the Austin Fully Developed Floodplain (25-year floodplain).

If new construction or structures (i.e., bath houses, sidewalks, parking) are desired, the various code regulations, requirements for materials and the durability of the structures will need considerable investigation and review. Development in the 25-year floodplain is prohibited, and development in the 100-year floodplain will require a variance. For development in the floodplain, the variance will require:

- Mitigation of volumes that would exacerbate or cause greater flooding
- Require raised floor elevations above the floodplain
- Improvements to the drainage system
- Acceptable emergency access by vehicles
- Director approval

Recent flooding of neighborhoods and subsequent city buyout of houses in affected neighborhoods have begun to affect current and proposed stormwater regulations and could result in stricter future development in these zones.

The floodplain designation will be a key factor that may eliminate some sites from expansion or further enhancements as the sites are evaluated.

Stormwater Management Regulations

Given the locations of many pool sites in flood prone areas (noted above), a large number of these pools have received flood damage in the recent past during heavy rains and flash flooding, and it is a continuing problem as most pools do not have stormwater ponds and other controls that might help to mitigate these conditions.

The area and type of stormwater controls required for proposed improvements will determine the possibility of making improvements. Larger sites might be able to utilize sheetflow filtration and avoid stormwater structures. Small sites may need to severely limit the project Limits of Construction in order to avoid providing stormwater structures.

Eight of the City's pools and one splash pad are located within the Edwards Aquifer Recharge Zone which has its own set of more restrictive development regulations for development. As with the floodplain regulations, these conditions will somewhat limit the potential to enhance or expand pool facilities on sites in the Recharge Zones and are evaluated as part of the Site Suitability Ranking Process. The following aquatic facilities are located within the Recharge Zone:

- Deep Eddy Municipal Pool
- Springwoods Municipal Pool
- Balcones Neighborhood Pool

- Canyon Vista Neighborhood Pool
- Dick Nichols Neighborhood Pool
- Murchison Neighborhood Pool
- Reed Neighborhood Pool
- Westenfield Neighborhood Pool
- Mary Frances Baylor Clarksville Splash Pad

Sub-Chapter E Design Standards

City of Austin Land Development Code, Chapter 25-2 "Zoning," Sub-Chapter E, applies to all new development to "foster a built environment of aesthetic and sustainable value, enhance economic development efforts, promote Austin's unique character and natural environment, and ensure an efficient development review process." Application of Sub-Chapter E is based upon the adjacent roadway type (i.e., Core Transit Corridor, Hill Country Roadways, Highways, Internal Circulation Routes, Suburban Roadways, Urban Roadways) and the type of development; therefore, application of Sub-Chapter E to pool facility development/improvements is site specific. However, some general Sub-Chapter E sustainable strategies can be identified as being applicable to pool facility development/improvements:

- **Relationship of Pool Facility to Streets and Walkways**

  Improve public sidewalks along the roadway frontage to be supportive of pedestrian and transit mobility, consisting of a planting zone and a clear zone. Restrict (as much as practical) off-street parking from between the public roadway and the street-facing façade of the pool facility. Screen all off-street parking and provide landscaped buffering between parking and the roadway frontage sidewalk.

- **Connectivity**

  Provide direct pedestrian and bicycle access from public streets to the pool entrance/exit. Provide pedestrian and bicycle connections to adjacent parklands, greenbelts, trails and residential development. Provide a transit stop at the site. Provide shower and locker facilities for employees and increase bicycle parking to enhance physical fitness opportunities and multi-modal connectivity. Provide secure indoor bicycle storage. Provide shaded walkways.

- **Pool Facility Entryways**

  Provide at least one pool facility entry/exit that connects directly to the public roadway. Provide shaded walkways from parking areas to the pool facility entry/exit.

- **Exterior Lighting**

  Provide outdoor lighting applications that are either fully-shielded or full cut-off.

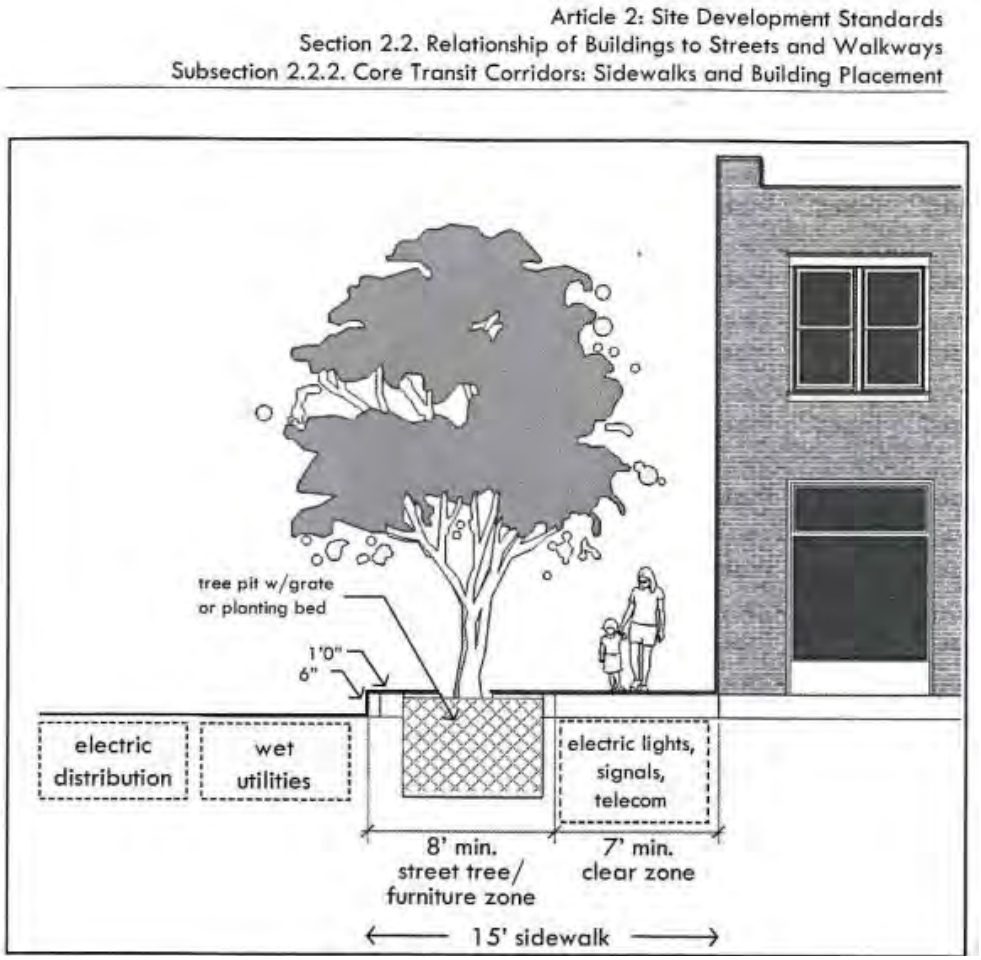
- **Screening of Equipment and Utilities**

  Screen solid waste collection areas and mechanical equipment from view from adjacent public street.

- **Open Space Amenities**

  Provide patio or plaza with outdoor seating areas, including fully or partially shaded spaces. Provide play area with amenities or equipment suitable for children under nine years of age, including partially-shaded areas with seating for adult supervision. Provide spaces that present educational, historic or cultural features or sensory experiences. Provide multi-use trail connections. Provide sports courts or playing fields. Provide a transit plaza that is adjacent to a transit stop.

Figure 2.7: Core Transit Corridor with Underground Utilities



City of Austin CIP projects by ordinance must meet Sub-Chapter E Core Transit Corridor Development Requirements.

The Core Transit Corridor typically requires a 15' sidewalk and Trees planted 30' on center. See Figure 2.7 to the right. The expense of providing a Sub-Chapter E compliant project can be prohibitive on pool and park projects where the site may consist of hundreds, if not thousands, of feet of street frontage. In addition, trees and plantings required for shaded pedestrian paths between buildings must be irrigated.

Not all PARD sites are currently irrigated. However, for future pool facilities, PARD is allocating funds to irrigate proposed landscaped areas.

Sub-Chapter E requires locating new municipal facilities close to the property line at the street frontage or internal circulation route. At many of the pool sites, this requirement may not be possible due to the previous design vision that included the location of park facilities inside parks with broad expanses of greenspace separating buildings from the street.

Renovation or redevelopment projects may be allowed to provide a reduced, alternative approach to both the location of facilities and the extent of sidewalks required. Alternative compliance may consist of allowing the proposed improvements to be designed around the constraints of the existing landscaping and improvements, while providing a shaded connection. Approval of such alternate compliance may require lengthy meetings with staff and presentations to city boards including the Design Commission.

Consideration and further conversations need to take place with PARD staff in regard to the extent of Sub-Chapter E compliance required as appropriate to the facility. The requirements of Sub-Chapter E may impact the overall cost of developing certain sites and will be a factor in the redevelopment criteria.

Project Example (Rosewood Neighborhood Pool)

The recent Aquatic Facility Needs Assessment noted that this pool was grossly inaccessible to those with disabilities. The restrooms were subterranean and only accessed by steep, code deficient staircases. The nearest parking area was accessed by a steep long ramp that did not contain landings, which is in violation of the both the State and Federal accessibility codes.

As a result of the code deficient situation, in 2015, PARD looked into the feasibility of adding restrooms on the site at a separate facility but not attached to the pool, serving the pool as well as the parking area containing a handicapped accessible parking space.

During the initial design phase, investigations and meetings with City staff determined that the required shaded pedestrian path, landscaping and other requirements of Sub-Chapter E made it cost prohibitive to continue with the project. After further discussions, these conditions were coordinated further with City staff and the project was able to proceed, which illustrates the necessity of coordination between PARD and regulatory departments.

Texas Health And Safety Code 341

These rules apply to swimming pools, wading pools, baby pools, waterparks, spray fountains or other artificial bodies of water typically used for recreational swimming, bathing or play. While this code is lengthy, some examples of items that would affect the planning of new aquatic facilities are listed below.

- All public swimming pools containing dressing rooms will require shower facilities.
- Public pools shall provide adequate and proper approved facilities for the disposal of human excreta by the bathers.

All upgraded or significantly altered pools will be required to have the appropriate number of toilet fixtures, changing rooms and showers to meet the newer codes. This requirement will impact the cost of all facilities but will be a constant that must be addressed at all facilities. Some facilities with bathhouses and showers may result in lower costs if the existing facilities can be upgraded versus developing a completely new facility.

Sub-Chapter L Regulations

Below are a few examples of regulations for the design of pools put forth in Sub-Chapter L and pertaining to basic aquatic facility design. Most of these examples translate into a larger footprint for the pool and require amenities, which might make the replacement of the pool and its associated structures unfeasible if the site is landlocked by adjacent buildings or topography.

- Wading pools shall be separate and physically set apart from beginner or shallow water areas by at least 15-feet of deck or pool yard enclosure.
- If a wading pool is within 35-feet of any deep-water area, a pool yard enclosure shall be provided (with clear visibility through the barrier) to physically separate the wading pool from the deep-water area.
- Class B pool deck widths shall be a minimum of 6-feet.
- Class C pool deck widths shall be a minimum of 4-feet.
- At least one drinking fountain is required.
- At least one shower and dressing booth for each gender shall be provided.

Most facilities meet these requirements, but they must be included in the evaluation of the potential to upgrade or expand existing facilities to the new standards.

Utility Service Availability

The majority of the City of Austin pools were built before 1970 (21 of 34 pools included in the Needs Assessment) and while they all have dry and wet utility service, it is most likely antiquated and needs replacing or major updates if the facility is to be renovated. Replacement may require not just piping inside the pool enclosure area, but utility extensions from the street. The resulting limits of construction added to the project may increase the expense of storm water controls required by the site development permit process. Therefore, utility enhancements have the potential to be costly, disruptive and add to a lengthy permit process.

Availability and distance to major utilities will be included in the evaluation criteria for sites for the potential to upgrade, redevelop, or expand.

Parking Requirements

The majority of the pool sites have inadequate numbers and types of parking spaces, including non-compliant ADA spaces that do not meet the minimum requirements. Most of these pools were designed as neighborhood pools where most visitors would access by walking. Current statistics demonstrate that many pool users drive to pools even though they may be in close proximity. Some pool sites do allow for the expansion of parking. However, any expansion of parking would also be an issue of adding impervious cover and tie back to cost and stormwater issues addressed previously. The majority of pool sites are landlocked or would require removing park features to achieve parking requirements.

City ordinance requires projects of a certain type or cost to be LEED Certified. LEED Certification may require that alternative fueling or carpool spaces, depending on LEED Certification credits pursued. All new parking would need to meet the City's parking regulations and site development permit requirements.

The availability of existing parking is a positive factor in the evaluation of the potential of aquatic sites to upgrade, expand, or redevelop existing pool facilities. Sites with on-street or limited parking and lack of space to develop parking will be limited to remaining as Neighborhood Pools.

Applicable Codes

Renovations or upgrades to any of the pool facilities, including sidewalks, restrooms, parking and building elements, will be required to be compliant with current building and accessibility codes, such as:

- Pools with a calculated occupancy of less than 50 persons/patrons would be classified by the IBC 2012 Building Code as "B" Business occupancy. Pools with 50 or more occupants/patrons would be considered "A" Assembly occupancy.
- The pool equipment buildings which are separate from the bath houses could be classified as "S" Storage. While the pool chemicals may be highly corrosive and generate noxious gases, they are classified as non-flammable. Currently all pools do not use the same chemicals for treating the water system, but depending on the type and quantities stored, these buildings may be classified "S" in lieu of being bumped up to a "H" Hazard occupancy. "H" classification carries stricter building fire code and construction guidelines. Attached pool equipment areas to bath houses may be required to comply with the more strict "H" occupancy as there is assumed to be more danger to pool patrons in this situation.
- Any modifications to an enclosed building will require a ComCheck calculation of energy use to be performed and subsequently demonstrate the energy use is within the code limits. The energy code will require more robust (and more costly) building materials than currently installed to meet code required thermal resistance (R) values for the building thermal envelope. This requirement may not apply to most buildings at outdoor pools as the buildings are not fully enclosed, and their use is seasonal and spaces are not conditioned.

These factors which may increase the cost of development are included in the evaluation criteria for suitability of sites for development. These factors do not omit sites from development but rather increase the costs.

2.6.3 Pool Accessibility

This subsection discusses pool operation and site conditions with respect to site civil accessibility at the sites and facilities for individuals with disabilities, as they relate to the regulations (Texas Accessibility Standards "TAS") by the Texas Department of Licensing and Regulation under the Texas Architectural Barriers Act, codified as Chapter 469, Texas Government Code. This subsection does not address issues with respect to compliance with removal of barriers under Title III of the Americans with Disabilities Act (ADA) and does not address building interior architectural barrier/accessibility issues. These issue are addressed in a separate Accessibility Audit, prepared concurrently with this Master Plan.

The Appendix I of the Needs Assessment Report indicates that of the 36 aquatic sites assessed, 29 pools have identified accessible site issues, including:

- Lack of accessible ramps and/or ramps with handrails
- Lack of accessible parking and/or accessible parking spaces with non-compliant dimensions and cross-slopes
- Inadequate accessible parking signage
- Accessible sidewalks and ramps with non-compliant cross-slopes, hand-rails and landings
- Lack of zero depth entry to wading pools
- Accessible route walking surfaces that are non-compliant (e.g., excessive crack widths and abrupt vertical grade changes at cracks and joints)

The Needs Assessment did not address the full scope of TAS compliant accessibility issues. As noted previously, the Parks and Recreation Department (PARD) recently completed a comprehensive accessibility assessment of its pool facilities, parts of which have been incorporated into this Master Plan.

Accessible Routes

Texas Accessibility Standards (TAS) require at least one accessible route to be provided within the site from all accessible parking spaces and accessible passenger loading zones, public streets and sidewalks, and public transportation stops to the pool facility entrance/exit and to all accessible pool facilities (TAS 206.2.1). TAS Chapter 4 provides accessible route **requirements for walking surfaces, ramps, curb ramps, handrails, landings and passing spaces.** The City of Austin (COA) Land Development Code (LDC) Chapter 25-2 "Zoning," Sub-Chapter E provides accessible route requirements as part of its integration and inclusion of people with disabilities into the vision for the future of the City of Austin (Sub-Chapter E issues are discussed in subsection 2.6.2 of this chapter).

Accessible Route from Public Right-of-Way and Public Transportation Stops. All pool sites have access to public rights-of-ways and public transportation stops. According to Appendix D of the Needs Assessment:

- Fifteen (15) pools have at least one public transportation stop within 1-1/2 blocks (within 0.1 mile) of the site
- Two (2) pools have at least one public transportation stop within 3 blocks (within 0.2 miles) of the site
- Nineteen (19) pools have at least one public transportation stop greater than 3 blocks (greater than 0.2 miles) from the site

Each pool entrance/exit should have at least one accessible route to the public right-of-way and along the public right-of-way to at least the closest public transportation stop (accessible routes to all public transportation stops are desired as identified in the Appendix D of the Needs Assessment). The provision of accessible routes to the public rights-of-ways and to the public transportation stops will also help the COA fulfill its commitment to transit-friendly, walkable communities.

- **Accessible Route from Accessible Parking**

  Twenty-three (23) pools have on-site parking. All accessible parking spaces must have an accessible route to each pool entrance/exit. If any parking is added to the aquatic sites that currently do not have on-site parking, accessible parking will be required as part of the addition of parking, and the accessible parking will require an accessible route to the pool's entrance/exit.

- **Accessible Route within the Pool Facility**

  All pedestrian circulation routes within each pool facility must be accessible and TAS-compliant. All elements along the circulation routes must be accessible and TAS-compliant, including walking surfaces, ramps, handrails, furniture, and drinking fountains. Twenty-six (26) pools have poor joints in the concrete decks, and 23 pools have deck cracking and uneven joints. From an accessibility standpoint, all walking surfaces within the pool facility should be considered as accessible routes and should comply with TAS Chapter 4 for accessible routes.

  As part of the internal accessible route improvements, Appendix I of the Needs Assessment indicates zero depth entry modifications are required for wading pools at 11 aquatic sites.

- **Sidewalks and Ramps**

  The two most common elements of an accessible route are sidewalks and ramps. Sidewalk running slope, cross-slope, clear width, turns, and passing space requirements are given in TAS 403. A walking surface with a running slope steeper than 1:20 is defined as a ramp. Ramp running slope, cross-slope, clear width, landings and handrail requirements are given in TAS 405. The COA LDC Chapter 25-2 Sub-Chapter E has additional criteria for planting zone and clear zone sidewalk elements along Core Transit Corridors, Internal Circulation Routes, Urban Roadways and Suburban Roadways. The City of Austin has standard construction details for its sidewalks and curb ramps.

Accessible Parking

General site parking requirements are discussed in subsection 2.6.7 of this document. Where parking spaces are provided, parking spaces must be provided that are accessible (TAS 208). TAS Table 208.2 provides the minimum number of required accessible parking spaces per total number of parking spaces provided in a parking facility. In addition, van accessible parking spaces must be provided at a ratio of 1 van accessible parking space per 6 accessible parking spaces. Accessible parking spaces must be located on the shortest accessible route from parking to the pool entrance/exit. Layout, signage, markings, and cross-slope requirements for car and van accessible parking spaces and access aisles are provided in TAS Chapter 5. Twenty-three (23) pools have on-site parking. Accordingly, they must provide a certain number of car and van accessible parking spaces with associated access aisles and accessible routes to pool entrances/exits. The Needs Assessment recommends the addition of accessible parking at six (6) of these 23 pool sites because they do not currently meet these requirements.

Passenger Loading Zones

Passenger loading zones, if provided, must be accessible (TAS 503). Vehicle pull-up space, access aisle, markings, and cross-slope requirements are provided in TAS 503. It is anticipated that passenger loading zones will be needed at each pool entrance/exit, though having a passenger loading zone is not required by TAS.

Stairs

Stairs are not part of an accessible route; however, all stairs must comply with TAS 504 with respect to tread and riser height and depth, tread surface, nosings, and handrails. Stair handrails must comply with TAS 505. It should be noted that TAS criteria for handrails do not necessarily address OSHA fall protection requirements.

2.6.4 Safety

This subsection discusses site civil safety and security issues at the pool sites, including lighting, signage, fencing, emergency call stations, and Crime Prevention through Environmental Design (CPTED).

Lighting

Chapter VIII of the Needs Assessment identifies 11 pool sites that need exterior lighting improvements around the pool facility and/or within the parking lot. In addition, the Needs Assessment identifies public desire for additional night-time pool facility functions (e.g. night/evening swim hours, family movies, etc.), which might require additional site security lighting in parking areas and along pedestrian/bicycle access routes.

Outdoor lighting should incorporate "Dark Sky" lighting strategies to preserve the nocturnal environments and to increase night sky access by reducing the adverse effects of excessive artificial light outdoors. It is recommended that the outdoor lighting be fully shielded, full cut-off, and comply with the recommended strategies of Austin Energy (AE) Green Building 2013 "Commercial Rating Guidebook," Item 15 for Light Pollution Reduction. Directional lighting should be minimized as much as possible.

Outdoor lighting should be provided along parking aisles, along pedestrian access ways, and along the pedestrian/bicycle paths. Some wayfinding signage might require directional lighting.

Signage

The Needs Assessment Report identifies 17 pool sites that need signage/wayfinding improvements. The signage improvements should include vehicle traffic control signs, pedestrian/vehicle warning signs, pedestrian/bicycle/vehicle wayfinding signs, and accessible parking and route signs.

Fencing

The Needs Assessment identifies four (4) pool sites that need perimeter security fencing repairs and/or replacement.

Emergency Call Stations

Consideration should be given to installation of solar-powered Emergency Call Stations at pool sites, especially at more remote locations, similar to the Emergency Call Stations that Capital Metro Transit Authority (CMTA) installs at its transit station parking lots. The Emergency Call Stations provide the public with an added sense of security and an option for quick emergency notification.

Crime Prevention through Environmental Design (CPTED)

The pool facilities can incorporate a variety of strategies into the sites' built environment, as much as is applicable and practical, to help deter crime:

- Increase pedestrian and bicycle traffic
- Provide for vehicle circulation to use vehicles as a surveillance asset
- Create landscape designs that enhance surveillance, especially in proximity to designated points of entry and opportunistic points of entry
- Use the shortest, least sight-limiting fence appropriate for the situation
- Avoid poorly placed lights that create blind spots
- Ensure potential problem areas are well lit, such as along pathways, entrances/exits, parking areas, and information kiosks
- Avoid too bright security lighting (shielded and/or cut-off luminaires) that creates blinding glare and/or deep shadows
- Place lighting along pathways and other pedestrian-use areas at proper heights for lighting the faces of the people in the space
- Utilize closed-circuit cameras to provide surveillance where window surveillance is unavailable
- Minimize points of entry, and clearly identify the points of entry
- Maintain the site and landscaping

- Provide trees
- Display security system/surveillance signage at access points
- Display public activity signs
- Avoid cyclone fencing and razor-wire fencing
- Place amenities, such as seating, in common areas

Equipotential Bonding

As noted during the installation of the new hydraulic lifts for ADA access to the pools, these installations were accomplished by drilling into the concrete and placing a removable sleeve for the lift. It was brought to the attention of the Consultants that the lifts are not bonded to the pool, and with the age of the pools, some of the other metal extrusions from the pool deck and pool may also not be grounded. The pool ladders, lifeguard chairs, and ADA lifts should all be tied into the rebar for the pool and deck for proper bonding in accordance with the National Electrical Code, ADC Section 680.26.

The first mention of grounding pools in the N.E.C. occurred in 1962. Prior to that date, there is no mention of grounding or bonding of pools. In 1975, bonding is first mentioned as a separate issue from grounding of electrical equipment, and 1984 brought the first clarification that the intent of the code is to eliminate any voltage gradients between the pool and surrounding deck and appurtenances. Since then, the code has been clarified and updated (most recently in 2008) to address the issue of vinyl and fiberglass coated pools and to include bonding of the water.

The primary solution to this deficiency would be to replace the pool decks within three (3) to five (5) feet of the pool, which could then be connected to the pools structural framework, and ground each of the metal extrusions.

2.6.5 Environment

This subsection discusses site environmental issues with respect to pool operations, including disposal/discharge of chlorinated water, impervious cover, storm water quality treatment, erosion and sediment control measures, and tree protection.

Chlorinated/Chemical Effluent Disposal/Discharge

There are two primary conditions where existing pool facilities discharge chlorinated effluent from the sites: filter backwash discharge and end-of-season draining of the pools. In general, the effluent is discharged to the City of Austin wastewater system if there is wastewater infrastructure nearby; otherwise, the effluent is discharged directly to local storm drains and/or receiving streams. From a wastewater system regulatory standpoint, the chlorine chemical (e.g. Calcium Hypochlorite), pH balance chemical (e.g. Muriatic Acid), oil and organic matter content will normally fall within acceptable ranges for direct discharge into the City of Austin wastewater system. Discharge to a local storm drain or receiving stream is subject to regulation by the City of Austin and Texas Commission on Environmental Quality (TCEQ) under the Texas Pollutant Discharge Elimination System (TPDES) Program (which is the State of Texas' local administration of the Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) Program). Discharges to the surface waters of the State of Texas must fall within a permitted activity, either permitted under the TPDES General Permit or permitted under a TPDES Individual Permit. Discharges to the surface waters of the State of Texas must comply with the state Water Quality Standards, which must take into account whether or not the receiving water body is classified as an "Impaired Water Body." Therefore, no generalizations can be made concerning the regulatory acceptability of discharging effluent from the pool facilities to local storm drain systems and surface water bodies.

From a planning standpoint, three primary alternatives may be considered to discharge pool facility effluent.

- **Re-Irrigation**

  Re-irrigation involves discharging the effluent to the site vegetation/landscaping through a "reuse" irrigation system that is separated from the domestic water irrigation system. A re-irrigation system

requires a filter, storage tank, pump, distribution, and backflow preventer system. Assuming the effluent chemistry is compatible with the local vegetation, re-irrigation is one of the acceptable green infrastructure water quality treatment systems.

Wastewater

Discharge to the Public Wastewater System. If a public wastewater main is nearby, the effluent can be discharged directly to the wastewater system. Generally, the least costly effluent discharge connection is a gravity flow connection to the public wastewater main if there is already public wastewater infrastructure downgradient from the pool facility. If there is not a downgradient wastewater main, an effluent pump/force main system is required.

- **Discharge to the Local Storm Drain and/or Surface Water**

  From an environmental standpoint, direct discharge of the effluent to a storm drain or surface water is the least desirable alternative, unless the effluent has been pre-treated to remove organics and oils and to de-chlorinate. Recently, 3,000 gallon settling tanks have been installed at Reed and other pools as a method of allowing solids to settle and to allow the chlorine to dissipate before discharging into storm systems.

- **Neutralize chemicals used in cleaning**

  The acid used to clean Deep Eddy Pool once it is drained should be neutralized prior to discharge into a storm or stream system.

Impervious Cover

The maximum allowable impervious cover at a pool site is controlled by a variety of zoning and watershed ordinances and regulations. In general, reconstruction of existing impervious cover is usually considered as maintenance as long as the purpose of the impervious cover remains unchanged (e.g., re-pavement of a parking lot or reconstruction of an existing pool deck). However, if an existing pervious ground surface is covered by new impervious cover (e.g., expansion of a parking lot) or if previously grandfathered impervious cover is re-purposed as redeveloped impervious cover, then the new and redeveloped impervious cover may count against the maximum allowable impervious cover. Therefore, it is important that the maximum allowable impervious cover and the existing impervious cover (and their uses) be identified at the pool sites where extensive impervious cover construction/reconstruction is being considered.

The addition of site impervious cover must be considered with respect to stormwater quality treatment requirements and be considered with respect to potential impacts to peak site runoff characteristics and requirements for stormwater detention (see subsection 2.6.8).

Stormwater Quality Treatment

In general, the addition of site impervious cover requires water quality treatment of the runoff from new impervious cover and from redeveloped impervious cover that is previously untreated. Under certain conditions and within certain watersheds, small amounts of new and/or previously untreated redeveloped impervious cover are allowed without providing stormwater quality treatment (e.g., up to 8,000 square feet of new and redeveloped impervious cover outside the Barton Springs Zone). Also, the City of Austin Land Development Code excludes stormwater treatment from certain types of impervious cover (e.g., pools and water quality treatment structures). However, from a planning standpoint, it is prudent to provide stormwater quality treatment for any proposed new impervious cover, any repurposed impervious cover, or any reconstructed impervious cover as a Sustainability strategy (see subsection 2.6.6), regardless of whether or not the Land Development Code requires stormwater quality treatment.

The City of Austin Environmental Criteria Manual (ECM) Section 1.6.0 provides a variety of stormwater quality treatment strategies. The City of Austin encourages the incorporation of Green Stormwater Quality Infrastructure, including retention/re-irrigation, vegetative filter strips, bio-filtration, rainwater harvesting, porous pavement for pedestrian use, non-required vegetation (e.g., trees), and rain gardens. A potential

option exists to participate in the City of Austin "Optional Payment instead of Structural Controls in Urban Watersheds" Program.

Erosion and Sediment Control Measures

Erosion and sedimentation control measures are required to minimize the adverse impacts of erosion and sedimentation from any site construction activities and from post-construction stabilized ground surfaces. Temporary construction erosion and sedimentation controls must be incorporated into any "land-disturbing" activity and normally include silt fences, rock berms, stabilized construction entrances, temporary seeding, soil stabilization mats, inlet protection, and filter dikes. Temporary erosion and sedimentation controls must be designed, installed and maintained in accordance with the following criteria:

- City of Austin: Environmental Criteria Manual (ECM) Section 1.4.0 and Appendix P-1 notes,
- Texas Commission on Environmental Quality (if the pool site is within the Edwards Aquifer Zone): "Complying with the Edwards Aquifer Rules, Technical Guidance on Best Management Practices," latest edition, Sections 1.3 and 1.4.

Post-construction permanent erosion and sedimentation control measures are normally incorporated into the landscaping (e.g., permanent vegetation) and local drainage system stabilization (discussed in subsection 2.6.8).

Tree Protection

Tree protection measures are required by the City of Austin to protect and preserve the urban forest as part of any site development and construction project. To the greatest extent possible, all trees with trunk diameters greater than 2 inches should be protected and preserved using a number of strategies, including mulching, protective fencing, planking, pruning (under the guidance of an arborist), supplemental application of nutrients, restricted construction of improvements within the critical root zones, parking peninsulas, and tree wells. The Environmental Criteria Manual indicates a 4" tree for this treatment, but PARD utilizes this standard for trees over 2". City of Austin Environmental Criteria Manual (ECM) Section 3.5.0 criteria and ECM Appendices P-2 and P-6 provide regulations for tree preservation measures.

The following tree protection measures should be incorporated into any landscaping and improvement work on the pool sites:

- Preserve a minimum of 50% of the Critical Root Zone (CRZ) at natural grade with natural ground cover
- No cut or fill greater than 4 inches located closer to the tree trunk than ½ CRZ radius distance
- No cut or fill at all within the distance from the tree which is three times the trunk diameter

If trees are removed, measures will be needed to mitigate the loss of urban forest, which can include planting replacement trees, preservation or restoration of natural areas, providing a maintenance program for the on-site trees to be retained, transplanting trees, and payment into the "Urban Forest Replenishment Fund" (UFRF).

Endangered or Threatened Species

Endangered species are known to be located at Barton Springs and must be considered in the evaluation of other sites for potential expansion. The Texas Parks and Wildlife web page identifies the Barton Springs Salamander (Eurycea sosorum) as follows:

"The Barton Springs Salamander occurs only at the spring outflows of Barton Springs. These are often found under rocks or in gravel in water several inches to 15 feet deep. They can also be found hiding in aquatic plants and algae. They rely on a clear, clean, continuous flow of spring water. The Barton Springs Salamander is clearly capable of living underground, but also inhabits surface environments. Although not known for certain, some scientists believe the salamander is primarily a surface-dweller that is adapted for life underground when surface conditions become unsuitable."

Monitoring water quality at Barton Springs is essential for assessing the cumulative impact of development on the entire Barton Springs Edwards Aquifer as well as for endangered species protection and preservation

of the unique swimming site. An automatic sampler is stationed at Barton Springs to collect data on pH, temperature, turbidity, specific conductivity, dissolved oxygen, and depth. Watershed Protection groundwater monitoring staff test for suspended solids and nutrients every two weeks. Additionally, twice weekly, and following rainfall over one inch, the Parks and Recreation Department and/or County Health Departments test for bacteria levels.

The Center for Biological Diversity website provided the following description:

"Saving The Barton Springs Salamander"

Every year, more than 340,000 people visit the Barton Springs swimming hole in Austin, Texas. Few swimmers realize they're taking a dip in the home of one of North America's most endangered species — the Barton Springs salamander. An entirely aquatic amphibian, this salamander is uniquely adapted to live in Barton Springs' warm, consistently flowing water. But if Austin can't curb the urban expansion that degrades the water quality of the springs, this tiny creature will swim with us no more.

Barton Springs is part of Texas' Edwards Aquifer region, which provides habitat for more than 50 species of animals and plants living nowhere else in the world — including the Barton Springs salamander. Since the springs provide much of Austin's municipal water supply, their cleanliness is a critical issue for both local salamanders and Austin's human population. But increasing development in the area has severely contaminated the aquifer, and salamanders bear the brunt of the damage. Sediment runoff from construction clogs their gills, smothers their eggs, reduces the availability of spawning sites, and lessens water circulation and oxygen.

Also of concern are pesticides, six of which have been known to contaminate Barton Springs — and which are likely causes of strange deformities and deaths recently seen in Barton Springs salamanders. In 2002, the U.S. Fish and Wildlife Service requested that the Environmental Protection Agency engage in consultations regarding pesticide impacts on the salamander — but the agency failed to do so. The Center, along with Austin environmental group Save Our Springs Alliance, sued in 2004, and in 2005, the EPA agreed to perform consultations regarding pesticide impacts for atrazine and five additional pesticides. The Center continues to monitor and oppose harmful chemical pesticide use through our Pesticides Reduction Campaign."

Two pool sites include critical habitat for two other salamanders the Jollyville Plateau Salamander (threatened) at Canyon Vista and the Austin Blind Salamander (endangered) found at Balcones (as well as Barton Springs).

Invasive Species

Invasive species are a constant issue for any park and recreation system. Although not an issue within existing pool fences, it is a concern at sites where pools may be expanded. Invasive species can take over the landscape of a site and require costly management programs.

2.6.6 Sustainability

This subsection discusses site civil sustainability issues with respect to pool operations, including Sub-Chapter E issues, site civil LEED strategies, and landscaping.

LEED Strategies

Currently, LEED (Leadership in Energy and Environmental Design) program of the U.S. Green Building Council) silver certification is required by City Ordinance for new projects over $2,000,000 or renovations over $500,000. As projects for renovation and improvements are considered, budgets to meet LEED certification should be included where appropriate.

Meetings will need to occur early in the budget process with city staff to clarify when it is feasible to meet LEED certification due to the project type and components upgraded by facility type and budget.

The City requirement to utilize LEED standards will apply to all sites and is, therefore, not a limiting factor in the site evaluations, but some sites may be more adaptable to LEED principles.

The proposed pool improvements may or may not involve LEED certification; however, there are several site civil LEED sustainable practices strategies that can be incorporated into the pool improvement projects.

- **Community Connectivity**

  Channel development to existing infrastructure to provide connectivity and to protect greenfields and preserve habitat and natural resources, such as providing pedestrian connectivity to residential neighborhoods and basic services (see also Sub-Chapter E discussion, subsection 2.6.2).

- **Public Transportation Access**

  Reduce pollution and land development impact from automobiles, such as providing, within walking distance, access to one or more bus stops for two or more public, campus or private bus lines usable by building occupants or providing, within walking distance, access to commuter rail, light rail or rapid transit station (see also Sub-Chapter E discussion, subsection 2.6.2).

- **Bicycle Storage and Changing Rooms**

  Reduce pollution and land development impact from automobiles, such as providing secure bicycle racks and/or storage near pool entrance/exit and providing shower/changing facilities in the pool facility for staff.

- **Low Emitting and Fuel-Efficient Vehicles**

  Reduce pollution and land development impact from automobiles, such as providing preferred parking for low emitting and fuel-efficient vehicles and installing alternative-fuel fueling stations (e.g., electric).

- **Alternative Transportation Parking Capacity**

  Reduce pollution and land development impact from automobiles, such as sizing parking to meet, but not exceed, minimum required parking and providing preferred parking for carpools and vanpools.

- **Protection or Restoration of Habitat**

  Conserve existing natural areas and restore damaged areas to provide habitat and promote biodiversity, such as limiting the footprint of site disturbance and restoring/protecting green space with native or adaptive vegetation.

- **Maximize Open Space**

  Promote biodiversity, such as maintaining a high ratio of open space to development footprint.

- **Stormwater Quantity Control**

  Limit the disruption of the natural hydrograph by reducing impervious cover, increasing on-site infiltration, reducing or eliminating pollution from stormwater runoff, and eliminating contaminants, such as preventing the post-development peak discharge rate and quantity from exceeding the pre-development peak discharge rate and quantity and protecting the receiving streams from excessive erosion, including stream channel protection/stabilization.

- **Stormwater Quality Treatment**

  Limit the disruption and pollution of natural water flows by managing stormwater runoff such as reducing impervious cover, promoting infiltration, and capturing and treating the quality of the stormwater runoff.

- **Heat Island Effect (Non-Roof)**

  Reduce heat islands to minimize impacts on microclimates and upon human and wildlife habitats, such as providing tree canopy shading, solar panel shading, architectural/structural device shading, hardscape materials with high solar reflectance index (e.g. concrete), and open-grid pavement systems.

- **Light Pollution Reduction**

  Minimize light trespass from the pool site to reduce sky-glow to increase night sky access. Improve night time visibility through glare reduction and reduce development impact from lighting on nocturnal environments, such as lighting areas only as required for safety and comfort, incorporating cutoff luminaries, low-reflectance surfaces and low-angle spotlights, and managing light densities based upon zones of usage.

- **Construction Waste Management**

  Divert construction and demolition debris from disposal in landfills and incineration facilities. Redirect recyclable recovered resources back to the manufacturing process and reusable materials to appropriate sites (e.g., incorporation of concrete and asphalt debris and soil excavations into the site civil pool improvements).

Landscaping

From a site improvements standpoint, landscaping is required by the City of Austin Land Development Code (LDC):

- To screen vehicle parking from view from adjacent rights-of-ways
- Provide an even distribution of landscaped areas within the interior of the parking lot
- Provide parking islands with trees
- Provide landscaped area with tree close to all parking spaces

The City of Austin Environmental Criteria Manual (ECM) contains sustainable practices with respect to landscaping, including trees, which can be incorporated into the pool improvement projects:

- Use plantings listed in the Preferred Plant List as much as possible (ECM Appendix V)
- Provide minimum 8-ft width of islands, medians and peninsulas which contain new trees
- Provide buffering plantings using shade trees, ornamental trees and shrubs (with low or no irrigation demand)
- Install water efficient irrigation system, including use of reuse/recycled water
- Install tree protection measures within the landscaping

2.6.7 Parking

This subsection discusses site parking and parking lot issues at the pool facilities.

Number of Parking Spaces

The City of Austin Land Development Code (LDC) and Transportation Criteria Manual (TCM) require site development to provide adequate parking (standard, accessible, bicycle) based upon the "density" of site use(s). Swimming pools fall under "Outdoor sports and recreation" use category in the parking tables of LDC 25-6 Appendix A. The parking requirements for all outdoor sports and recreation (Schedule "B") must be made by special determination based upon the requirements applicable to similar uses, the location and characteristics of the use, and appropriate traffic engineering and planning data.

The Needs Assessment indicates at least 6 pool sites need additional parking spaces, including increased accessible parking spaces (accessible parking is discussed in subsection 2.6.3). In general, pool improvements will require consideration of the appropriate number and type of parking. If the proposed

pool use and/or "density" of pool use (i.e. square footage of pool and wading pool) remain unchanged and there is an approved Site Plan and/or Parking Determination, then the required minimum number of parking spaces will remain unchanged, except the number of accessible parking spaces must comply with the most recent TAS standards (see accessible parking discussion subsection 2.6.3). If the proposed pool use or "density" of pool use change or if pool improvements are proposed at a pool site without an existing approved Site Plan or Parking Determination then the required number of parking spaces may have to be increased.

Parking Lot

The Needs Assessment indicates at least six (6) pool sites need some type of parking lot improvements. The City of Austin Transportation Criteria Manual (TCM) provides criteria for parking lot layout, including consideration of ingress/egress driveways, parking spaces, drive aisles, turning and maneuvering, internal circulation, signage and pavement markings, pavement design, safety barriers, visibility, emergency vehicle lanes and turn-around, and fire protection device (e.g., fire hydrants) clearances. In addition, the City of Austin LDC also has parking lot landscaping requirements (see landscaping discussion Section 5.3), and the State of Texas TAS has accessible parking requirements.

The location of a parking expansion with respect to the pool facility and the public roadway must take into account Sub-Chapter E requirements (see discussion subsection 2.6.2). The addition of impervious cover, associated with expansion of the pool parking lot, will require consideration of maximum allowable impervious cover and stormwater treatment (see discussion subsection 2.6.5).

2.6.8 Utilities

This subsection discusses site utility issues, including drainage, water and wastewater, at the pool facilities.

Drainage

The City of Austin Land Development Code, Drainage Criteria Manual and Environmental Criteria Manual require each pool site to manage its stormwater runoff with respect to stormwater runoff peak rate and quality.

Stormwater Runoff Peak Rate of Discharge Management

Stormwater runoff peak rate of discharge management strategies must be implemented to prevent site post-improvement peak discharge rates from exceeding pre-improvement peak discharge rates. In order to manage stormwater peak discharges from the site, the Drainage Criteria Manual provides criteria for the design and construction of stormwater management ponds. In addition, pool sites within certain watersheds are eligible for consideration of payment into the Regional Stormwater Management Program (RSMP) in lieu of constructing on-site detention structures as long it can be demonstrated that the higher peak discharges from the site can be adequately conveyed from the site through the downstream storm drain conveyance systems.

Stormwater Quality Treatment

In general, stormwater quality treatment strategies must be implemented to minimize the effect of non-point source pollutants in stormwater to improve stormwater and receiving stream water quality by removing suspended particulate matter and associated constituents, such as bacteria, nutrients and metals. There are two primary water quality zones within the City of Austin; the Barton Springs Zone (BSZ) and outside the BSZ (which in turn is further divided into watersheds). Each water quality zone has its own water quality treatment criteria. In order to manage the quality of the stormwater runoff from the pool site, the Environmental Criteria Manual provides criteria for the design and construction of water quality controls, including sedimentation/filtration (full and partial) ponds, wet ponds, retention/irrigation ponds, vegetative filter strips, biofiltration, rainwater harvesting, porous pavement (for pedestrian use only), non-required vegetation (e.g., trees), and rain gardens. In addition, pool sites within Urban watersheds are eligible for consideration of payment into the Urban Watersheds Structural Control Fund in lieu of constructing on-site water quality control structures.

Water

Water utilities involve services off the Austin Water Utility (AWU) water mains for two primary uses: domestic water service and fire flow. The City of Austin Utility Criteria Manual (UCM) governs the design and construction of domestic water service, which include for pool facilities, service for plumbing fixtures, pool makeup water, and landscape irrigation. The UCM and Fire Protection Criteria Manual govern the design and construction of fire flow service, which include fire sprinkler systems and fire hydrants. The Needs Assessment report identifies plumbing-related improvements at various pool facilities, but no domestic water service or fire flow capacity improvements are identified. However, expansions of plumbing fixtures, pool capacity or landscaping could require up-sizing water services and meters. Expansions of pool facility buildings could require modifications/relocations to the fire hydrants. At the very least, adequate fire flow capacity for any pool improvement must be demonstrated under residual pressure conditions.

There are a variety of strategies to minimize the up-sizing of the domestic water supply, including installation of water efficient plumbing fixtures and irrigation system, reduction of pool liner leakage, and use of recycled water (or rainwater harvesting) for irrigation.

The Office of Sustainability suggested having water taps for pools separated from other park facilities to better monitor the quantity of water used at the pools. This office also suggested minimizing energy and water use during construction.

Deep Eddy

Deep Eddy Pool is filled from four wells. Without a filtration system, the water needs to be drained and refilled approximately every two days. The frequency depends on the quality of the water in the wells and conditions for algae growth. The Parks and Recreation Department estimates that it takes approximately 300 million gallons from the aquifer each year to fill the pool. In addition to the large quantity of well water, the energy used to operate the pumps must also be considered in the environmental impact.

Wastewater

Wastewater utilities involve discharge to the Austin Water Utility (AWU) wastewater mains for two primary purposes: discharge of effluent from the plumbing fixtures and discharge of pool water (filter back-washing and end-of-season pool draining). Not all pool facilities have bathhouses or toilets, in part because there are no nearby wastewater mains to discharge the plumbing fixture effluent by gravity. Upgrades and/or expansion of a pool facility's plumbing fixtures may require upgrades to the drain/wastewater collection system and discharge pipe to the wastewater main, depending upon the peak fixture flows and collector pipe capacity. The addition of a bathhouse or toilet where one currently does not exist may require a pump/force main system to the nearest wastewater main. Discharge of chlorinated effluent from a pool is discussed in subsection 2.5.5. The City of Austin Utility Criteria Manual (UCM) governs the design and construction of connections (gravity and force main) to the AWU wastewater system.

2.7 Staff Strengths, Weaknesses, Opportunities, and Challenges (SWOC) Exercise

In January 2016, the Consultants led a SWOC (strengths, weaknesses, opportunities, and challenges) discussion. The results are summarized here:

2.7.1 Strengths

What are the Strengths of the Aquatic Division facilities, programs, and staff? What are you most proud of?

- Lifeguards
- Flexibility/training
- Safety culture
- Don't compromise on safety - lifeguards
- Variety of facilities
- Staff dedication
- Desire to engage the public
- Ebb and Flow

- Ability to work as a team
- Form partnerships (SwimATX)
- Working/Passion of community
- Maintenance staff
- Diverse perspectives / years of experience
- Qualifications of the Aquatic Team
- Number of pools
- Ability to keep pools operational in spite of their ages
- Openness/Willingness to make changes
- Culture of change
- Adaptability
- Focus on the future (development and staff)
- Pay increase for part-time staff
- Diverse array of programs
- Affordable programs
- Swim team program
- Recognize need for improvement
- Individual staff talents
- Weather in Austin
- Geographic location – weather in Austin
- Citizen advocates
- Council advocates
- Austin's emphasis on green space – "City within a Park"
- Ability to think on our feet
- Accessibility to citizens
- Partnerships result in win-win (staff recruitment)

2.7.2 Weaknesses

What are the Weaknesses? What areas need improving?

- Lack of indoor aquatic facility – impacts training and recruitment Communication gaps/Staff on site Increased operations budget cuts Lack of awareness of programs and facilities - Need more education of the public
- Need for indoor facility for training, lap swimming, family activities and therapeutic recreation
- Number of pools – strain on staff – some close together
- Geographic locations of pools
- Amount of water used
- Age and current conditions of pools
- Older technology
- Need year round staff at five facilities
- Lack of indoor training facilities
- Lack of deck space for programming
- Hiring practices and background checks can take weeks
- Budget constraints
- Low brand awareness
- Communication between operations and programs – (Pool staff cannot call Maintenance directly) Inconsistent swim lesson program
- Timing of opening season
- Barriers to becoming a life guard
- Lack of funds for preventive maintenance Lack of standard parts Operations – Code and technology changes Funding Different builders with varying levels of expertise Only accept cash (since January 2016, accept credit/debit at 5 municipal locations for daily admission)
- Facilities are not able to address needs
- Most vocal residents versus greater community good
- Antiquated payroll and scheduling practices (city wide) Lack of access to Wi-Fi – Only two pools have internet access
- Outdated chemical controllers
- Lack of consistency in ownership
- Purchasing policies
- Employee site preferences based on the facility and safety – struggle to get life guards at some facilities
- Coordination sows in COA bureaucracy (support services)
- Politic dynamics
- Don't know what is driving the market (demographics)

- Population decline and affordability Hard to reach the public
- Reliance on high school age staff
- Lack of participation in some parts of Austin – do not know what is driving the market

2.7.3 Opportunities

What Opportunities do you see to build upon the strengths and improve upon the weaknesses?

- Multi-use facilities for balance and to complement each other
- New programs (scuba, kayak, paddle boarding, water aerobics, etc.)
- Indoor pools
- Event facilities (scale) (Use UT for 600 child swim team event)
- Leverage skill sets to grow programming
- New pay raise allows selection of staff
- Attract new swimmers / bring back old swimmers
- Sponsorships / partnerships / vendors
- Software/tech solution to scheduling
- Upgrading chemical controllers / technology / more efficient technology
- Year-round programs
- ADA compliance can be improved
- Competitive (cool, fashionable for teens)
- Fix reputation of swim lesson quality
- Assess best practices re: staff shortage
- Common language to define types of pools (define neighborhood, municipal, etc. with criteria)
- Add pools to rec center, mall locations where people are
- Basic amenities / landscaping / sound
- Focus Austin as a swim destination
- More efficient design (variable speed pumps, auto fill, etc.)
- Build tech info into new facility infrastructure
- Improved customer service
- More deck / grass / shade
- Maximize team talent
- Plan how to take the next step
  - Reuse or transition
  - Partnerships

2.7.4 Success

What must be done to realize Success? Participants were then asked to identify their top item and the total is identified in the parentheses.

- Funding (6)
  - Infrastructure
  - Staff
  - Sponsorships / alternate sources of income
  - Implement the Master Plan
- Need an indoor facility to train (3)
- Political support (3)
- Need more WSI's and more WSIT's (2)
- Need more water safety instructors (WSI's) (1)
- More full-time trainers and pool staff
- Influence – (policy, collaboration, advocacy)
- Clear identification of facility types – definitions and criteria
- Partnership and sponsorship opportunities defined
- Logical purchasing policies

2.7.5 Issues & Concerns

What are the health, safety, welfare, and environmental concerns facing the Division?

- Drought / water restrictions (pools and grounds)
- Having enough safety equipment maintenance / inventory
- Only seven pools with AED's (all as of 2017)
- Sustainable design / materials / landscaping
- Flooding (Dottie Jordan, Barton Springs, Reed, etc.)
- Endangered species at Barton Springs– potential to find more in the future
- Shortage of life guards nationally
- Chemical handling, delivery route, and storage (some go through lifeguard area)
- Plaster vs. paint (exposure / funding)
- Well vs. City water – water supply
- Regulation forces – new vs. experienced
- Security for closed pools (need non-climbable fences)
- Proper maintenance during off-season
- Time to repaint - exposure

2.7.6 Potential Best Management Practices

What are some potential sustainability best management practices that could be implemented?

- Non-traditional design models (St. Paul natural pool)
- Green energy (wind and solar)
- Xeriscaping (landscaping for crowd control and reduce water use)
- Grasses that are better for our climate zone
- Near public transportation for ease of transportation network (parking issues at some sites)
- Rainwater collection and irrigation with gray water
- Siting and location of pools
- Reduce paper waste – digital connections
- Right-size the pools – not too many
- Variable speed pumps – improved chemical controllers – automatic fill level controllers

3

PUBLIC ENGAGEMENT

3.1 Introduction

Very early in the process of developing this Master Plan, two key elements were completed: the development of the Public Information Plan (described in the SWIM 512 section below) and the Staff Strengths, Weaknesses, Opportunities and Challenges (SWOC) session with PARD Aquatic Staff (included in the Planning Context—Chapter 2). These two tasks provided a framework for actions that followed. A follow up meeting was held with the PARD Aquatic staff to elaborate on the discussions of the SWOC and to dive into more detail and gain an understanding of the current issues, concerns, and procedures.

The public engagement for this Master Plan consisted of a review of the input gathered during the first two phases, the Aquatic Facilities Needs Assessment (completed in 2014) and the SWIM 512 campaign held in the summer of 2015, followed by public workshops held during three stages of the Master Plan process. The first two workshops were held in March of 2016 in which general preferences and priorities were established. Following these meetings, a survey was distributed and completed by over 1,700 residents. Next, two focus groups in June 2016 and four workshops in July 2016 focused on the development of a more sustainable and equitable system of aquatic facilities. This engagement was used as a basis for further refinement of the process to determine criteria for redevelopment of aquatic facilities, which was later presented at two workshops in June 2017. Results of the public engagement are included in more detail in Appendix C.

3.2 Needs Assessment Input

3.2.1 Summary of Engagement Opportunities

The process began as part of the Aquatic Needs Assessment in 2014 with a series of 11 regional meetings, a statistically valid, random sample survey of 500 residents, and over 2,500 surveys collected at the pools or online, plus a Television Town Hall meeting in which over 63,000 Austin households were called to participate with nearly 6,000 persons accepting and participating.

The citizens of Austin have demonstrated strong opinions concerning their pools, and their input is crucial to the implementation of any major improvements to the aquatic system. Therefore, the public engagement process for the Austin Aquatic Master Plan has been conducted in three phases over the past three years, including many opportunities that were part of the Needs Assessment. The process engaged the public throughout each phase of the project, which continued through the completion of this Master Plan.

The process engaged over 13,000 people through the following methods:

- Public Workshops in regional locations
- Stakeholder groups and focus groups
- Statistically valid, random sample surveys
- Online and paper surveys
- In-park interviews at pools
- Neighborhood Association meetings
- Television Town Hall
- After-school and summer camps for youth
- Coordination with active user and advocacy groups

3.2.2 What are the Citizens' Priorities?

The citizens of Austin have been consistent throughout all phases of the public engagement. Recurring themes through all phases were:

- Keep the pools open and affordable
- Increase the hours and swim season length
- Improve restrooms, bathhouses, and seating areas
- Improve cleanliness of pools, bathhouses, restrooms, etc.
- Provide shade

More key findings of the engagement include the following:

- The majority of the 2016 survey respondents are recreational swimmers (82%), but a large group also swim laps and use the pools for fitness or therapy.
- A large majority visit the pools multiple times in the summer
- The most important actions the City could take to improve pools are (from the 2016 survey):
  - Increase the swim season (67%)
  - Provide additional shade (63%)
  - Upgrade pool and bathhouses (33%)
  - Add more lap lanes (28%)
  - Install zero depth entry (28%)
  - Provide more seating areas (23%)

3.3 SWIM 512: Public Engagement Synopsis

Prior to the commencement of this Aquatic Master Plan, the City instituted the SWIM512 campaign to take advantage of users at the pools in the summer of 2015. This process utilized on-site community conversations at three (3) Municipal Pools and eight (8) Neighborhood Pools, Neighborhood Talks at neighborhood association and organization meetings, and Community Focus Groups at recreation centers. This process led to the development of a survey instrument, which was implemented as part of the Master Plan development process.

3.3.1 Results

The results of this process include:

- Generally strong support for larger family aquatic centers and the development of indoor, year-round facilities
- A large percentage of the survey respondents are willing to pay a fee to use pools

- Preferred features, among the children polled through the summer camp and after school program, included tall slides, climbing walls, lazy rivers, indoor pools, diving boards, and shade
- Strong need for pools in some underserved neighborhoods, especially where geographic barriers such as major highways limit access to pools (ex. Colony Park)

3.3.2 Public Information Plan

A Public Involvement Plan (PIP) was developed at the beginning of the Master Plan process to outline the steps to be taken toward completion of this plan and the extensive public engagement that would be a crucial part to the determination of recommendations. The five goals and 17 objectives provided direction for the public engagement process throughout the development of this Master Plan (see Appendix D).

Goals and Objectives

Goal 1: To provide users, neighbors, and other direct stakeholders served by each existing pool facility with sufficient opportunity to contribute their input to the City of Austin and its consultants to inform and help shape the results of the Master Plan

Objective 1-A: Utilize and expand upon the extensive community engagement gained through the SWIM 512 process and utilize the stakeholder contacts from this process in further engagement strategies.

Objective 1-B: Informing stakeholders about the Master Plan; the processes and timelines; the goals, objectives and anticipated outcomes; and their ongoing progress.

Objective 1-C: Collecting stakeholder input that aids in assessing and defining current characteristics, conditions and needs of each district.

Objective 1-D: Collecting stakeholder input that aids in developing a vision that defines the desired physical, functional, aesthetic and cultural character of each district.

Objective 1-E: Collecting stakeholder input to aid in identifying enhancement needs, including recommendations for policy measures, capital investments, and opportunities for collaboration with both public and private partners.

Objective 1-F: Presenting recommendations for public comment, review and feedback.

Goal 2: To ensure that traditionally underrepresented and hard-to-reach populations and groups have sufficient opportunity to engage in the Master Plan process. This goal will involve using targeted and customized outreach strategies to ensure opportunities to participate for populations and groups including the following:

Objective 2-A: Environmental justice (EJ) populations.

Objective 2-B: Non-profit, faith-based and other community-serving organizations and their clients.

Objective 2-C: School communities (students, parents and staff) for campuses served by each facility. Utilize AISD and PTA contacts established in the SWIM 512 Process.

Goal 3: To maintain communications and outreach between the City and its consultants and other aquatic providers, government agencies, and key public and private partners, including:

Objective 3-A: Targeted outreach to public officials and key decision-makers to inform them of Aquatic Master Plan goals, objectives, anticipated outcomes, process and timeline.

Objective 3-B: Coordination and collaboration between the City and other agencies, providers and partners to leverage the use of the various available communications channels and outreach opportunities.

Goal 4: To communicate and enable opportunities for input for interested citizens throughout the City through appropriate engagement and outreach strategies, including:

Objective 4-A: Informing the public of the purpose and need, process and outcomes for the Aquatic Master Plan and their relationship to the Needs Assessment and the City's overall mobility policies and programs.

Objective 4-B: Providing information and opportunities for engagement for recreational/ aquatic advocates and other communities of interest that align with the purpose and need of the Master Plan.

Goal 5: Utilize and expand upon the extensive community engagement and contacts gained through the SWIM 512 Community Conversations, Neighborhood Talks, Community Focus Groups, and Community Survey, and utilize the stakeholder contacts from this process in further engagement strategies.

Objective 5-A: Analyze and utilize the results of the Community Conversations and Neighborhood Talks in the identification of community preferences and identification of alternative scenarios

Objective 5-B: Utilize the Community Preference Survey developed by Dr. Cortez to identify community preferences and priorities.

Objective 5-C: Incorporate the stakeholder lists and AISD contacts in further public engagement.

Objective 5-D: Utilize the findings of the Service-Learning Project in the establishment of scenarios to serve Austin.

3.4 Spring and Summer 2016 Workshops

As part of the Master Plan development process, two rounds of public meetings were conducted in 2016, including two meetings in March and another four in July 2016. In addition, the City and Consultants participated in neighborhood association meetings to promote the public workshops and the survey as well as to garner neighborhood thoughts and ideas.

The survey was conducted online and in paper form and was completed by over 1,700 Austin residents. The survey was promoted by email, use of NextDoor social media, and visits to the neighborhood associations. Additionally, the Austin Parks and Recreation Department conducted focus groups of children at their after school and summer camp programs. The purpose of this synopsis is to summarize citizen priorities and identify how this information will be used in the Master Plan.

3.4.1 What to Do with Pools that are Beyond Repair

The engagement as part of the Master Plan process built upon the prior lessons learned and included more specific topics related to the approach the City should take when a pool is beyond repair and priorities for improvements or renovations. The highest percentages of the survey respondents prefer *repairing pools that are in good condition (41%) or closing the pool and replacing it with a family friendly option (30%)*. In terms of priorities, the results were nearly evenly matched between *closing pools that are beyond repair and making necessary renovations to remaining pools (34%)* and *closing pools that are beyond repair and add a series of larger swimming pools to serve all areas of the city (32%)*.

3.4.2 Criteria for Action

The survey and July 2016 workshops also sought to identify citizen priorities regarding the criteria that should be used in the determination of how to renovate, redevelop, decommission, or relocate Austin's old pools. Citizens were asked to rank possible criteria. The overall sentiment from the survey is shown in the Table 3.1.

Table 3.1: Criteria for Action

Action	Survey Response
Current annual visits to the pool	51%
Proximity to other pools – distance to other pools	47%
Population size within a mile of the pool	47%
Costs to upgrade	44%
Pool is in a park with other activities	27%
Age of the pool	26%
Need to develop bathhouses/bathrooms (significant expense)	19%
Other (please specify)	12%
Access by public transportation	10%

This exercise was also used to rank 16 variables at the July public meetings with the items at the top typically including:

- Annual visits to the pool
- Location in an area with no pool
- Population within the service area
- Accessible by public transportation
- Cost to upgrade
- Proximity to other pools
- ADA accessibility

In addition to these criteria, the Master Plan Team has also identified other technical criteria which may be limiting factors such as location in a flood zone, availability of utilities, historic significance, etc.

3.4.3 Pool Types and Distribution Alternatives

The June 2016 Focus Groups and July 2016 Public Workshops provided opportunities to gather feedback on a potential system of pool types and distribution alternatives from the public. The following five aquatic facilities were presented:

- Neighborhood Pools
- Community Pools
- Regional Family Aquatic Center
- Regional Fitness Aquatic Center
- Premier Indoor Fitness Center

Following the presentation of the definition of each type, three potential systems of distribution were presented and then discussed with the participants.

- Neighborhood Pool Focused, which included primarily smaller neighborhood pools and would require a much larger quantity to serve the City
- Regional/Community Centered, which included a smaller number of more regional and community pools of a larger size
- Combination Concept, which included all pool types in a system with fewer pools than existing but more evenly distributed

The alternatives presented were intentionally not in the shape of Austin, so as to best frame a system to serve the entire city while avoiding specific neighborhood concerns. After the presentations, participants were

able to discuss the pros and cons of each alternative at stations and could use templates to develop their own system.

The Combination Concept was generally accepted as the most realistic to serve Austin, offering the most options and choices of types to serve the City, but some modifications were discussed. Specifically, participants indicated strong feelings for the neighborhood pools but indicated realistic understanding that the City cannot support the number of pools currently and add more without a significant impact on the current budget. Some concern was also expressed over the potential to charge fees for more pools and the need to keep swimming affordable, but no fee structure was discussed. Discussions on ways to improve on these alternatives are included in the meeting summaries (Appendix C).

3.4.4 How Will This Information Be Used?

Extensive public engagement helped build the framework for the next stage of the process, recommendations for the future. This information was used to generate the Vision, Goals, and Objectives. The alternatives described previously provide background for the type of system to develop to serve Austin and provide guidance on the final recommendations.

The discussion of the health, safety, welfare, environmental, and regulatory conditions assisted in the identification of potential criteria that were used in the Site Suitability Ranking Process (Chapter 7) to determine the recommendations for each existing pool and potential pool site. Citizen sentiments were used to determine how to weigh various elements based on importance to the public.

Using the Site Suitability Ranking Process applied to each existing and potential pool site, the Parks and Recreation Department will propose aquatic improvements and development that meets the Vision, Goals and Objectives of this Plan, while serving the citizens in the most sustainable manner in terms of economics, social equity, and the environment. All of the previous public engagement and analyses form the basis of the Master Plan recommendations and the Action Plan.

3.5 Preliminary Recommendations Public Workshops (June 2017)

3.5.1 Overview

The team consisting of the Austin Parks and Recreation Department Aquatic Division, Brandstetter Carroll Inc. and Adisa Communications held two public meetings. The first was held on June 10, 2017 at 10am at the Pan Am Recreation Center. The second public meeting was held on June 13, 2017 at 6:30pm at the Spicewood Springs Public Library.

Stakeholders (property owners, local neighborhood associations, City Council Members, staff and citizens) were informed of the meetings using multiple methods. Posters and fliers were distributed to community centers, and yard signs were distributed to public areas. Adisa Communications was in charge of making over 200 phone calls to Austin households, plus an additional 40 phone calls to past attendees.

Attendees were greeted by the Adisa team and each person received a fact sheet, comment card, site suitability pamphlet and demographic card. The attendees were allowed the first half hour to look over the project boards and ask any questions to team members present. After a 30-45 minute open house period, a presentation was given by Patrick Hoagland of Brandstetter Carroll. Seventeen (17) people attended the first meeting at Pan Am Rec Center, and thirty-four (34) people attended the second meeting at Spicewood Springs Library.

3.5.2 Input Received

The project team fielded questions from attendees about the proposed improvements as shown on the schematic. Attendees voiced the following questions:

- *Is our neighborhood pool indicated in red on the boards going to close?*
- *How do you prioritize your process?*
- *What are other measures for community input?*

- *How is the budget for the Aquatic Division created in relation to taxes?*
- *Is there a Master Plan draft available to the public?*

3.5.3 Comment Cards

Attendees were asked to answer three questions on the comment card. The log of the comments received for each of the questions can be found in Appendix C. A total of 17 comment cards were collected from both meetings. The questions were as follows:

- Are there any parts of the Aquatic Master Plan that need clarifying?
- What does the future of Austin's aquatic systems and pools look like to you?
- Please share additional comments or questions here.

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4

AQUATIC DIVISION VISION, MISSION, GOALS, & OBJECTIVES

The mission, vision, goals, and objectives of the Aquatic Division must align with the overall City and Park and Recreation Department Strategic Plans. Therefore, those guiding principles are summarized here to frame the Aquatic Division mission, vision, goals, and objectives.

4.1 City of Austin Mission, Vision & Pride Values

In developing its 2017-2021 Strategic Plan, PARD carefully considered the City of Austin's mission, vision, and values to ensure that the PARD Plan aligns with the City's values. The City of Austin Office of the City Manager developed the City of Austin's mission and vision. The City's adopted mission statement follows:

City of Austin Mission

To make Austin the best-managed city in the country.

City of Austin Vision

To make Austin the city everyone's talking about—so others will look to us for best-practices, innovation, and inspiration.

City of Austin Values

Austin also espouses a set of values that create the word PRIDE. The city's value statements follow:

- **Partner**—we will partner with one another and with our community to provide the recreational, cultural and outdoor experiences for the Austin community.
- **Responsibility & Accountability**—we take responsibility for achieving results and hold ourselves accountable for our actions.
- **Innovation & Sustainability**—we actively seek out good ideas that have a lasting, positive impact on our work, our community, and our environment.
- **Diversity & Inclusion**—we recognize and respect a variety of perspectives, experiences, and approaches that will help us achieve our organizational goals.
- **Ethics & Integrity**—our action will maintain the trust and confidence of the public and the best service.

4.2 Parks and Recreation Department Strategic Plan

The City of Austin Parks and Recreation Department is currently completing its Strategic Plan for 2017 - 2021. This plan is anticipated to be completed by January 1, 2017. The PARD Vision, Mission and Values are adapted from the Draft Strategic Plan.

The PARD Strategic Plan

The City of Austin Parks and Recreation Department (PARD) is taking definitive steps towards realizing a vision where it can continue to be an innovative leader in parks and recreation services. Through PARD's efforts, the City of Austin will have more inclusive, sustainable, and equitably distributed parklands, facilities, programs and amenities.

PARD Vision

The Parks and Recreation Department will be an innovative leader in parks and recreation experiences.

PARD Mission

Inspire Austin to learn, play, protect, and connect by creating diverse programs and experiences in sustainable natural spaces and public places.

PARD Values

Lifelong Recreational Opportunities - *We promote lifelong recreation, cultural, environmental, and educational opportunities for Austin's diverse communities.*

Inclusion - *We strive to reflect diversity, equity, and inclusion in all of our programs and services.*

Health and Wellness - *We contribute to Austin's health and wellness by providing safe and accessible parks, facilities, and programs.*

Sustainability - *We work to improve environmental and recreational functions and improve the connection between people and the environment.*

Accountability - *We commit to being professionally accountable to our customers, to our partners, to one another, and to ourselves.*

Collaboration - *We seek to strengthen partnerships between the City of Austin, private organizations, volunteers, and community groups to efficiently provide recreational opportunities to our residents.*

Customer Service - *We provide a world class parks system through exceptional customer service and stewardship.*

4.3 Aquatic Division Vision, Mission, Goals, & Objectives

The Aquatic Division mission and vision was developed through the extensive public engagement in the Needs Assessment, SWIM 512, and Master Plan processes, as well as input from the Aquatic Division Staff, Master Plan Team consisting of the Aquatic Advisory Board, Technical Advisory Group, and District Representatives Group. It is recommended that the vision and mission be evaluated annually to ensure they continue to meet the community's needs.

Aquatic Division Vision (What we strive to be)

Lead the Aquatic Industry with the highest quality aquatic standards for safety, programming, facilities, and staffing

The vision is intended to be aspirational and future-oriented, representing the impact the Division seeks to have on the community in the years ahead. This vision articulates the Division's desire to play a key role in

engaging residents, visitors and businesses of Austin in a way that provides opportunity to positively enhance lives. These enhancements may be realized in the form of positive health, wellness, safety, cultural, social and/or economic improvements.

Aquatic Division Mission (Our Fundamental Purpose)

Provide a sustainable and equitably distributed system of outstanding aquatic facilities and programs

Goals & Objectives: (Work towards)

To realize the vision of the *Aquatic Master Plan*, the Master Plan process developed a set of goals and objectives. The following goal areas have been established:

1. Financial Sustainability
2. Diverse Facilities
3. Year-Round Facilities
4. Progressive, Responsive Programming
5. Enhanced Operational Support
6. Foster Partnerships
7. Recruit & Retain High Performance Staff
8. Environmental Sustainability

The goals represent areas of strategic priority and desired outcomes while the objectives (numbered) indicate how the goal will be accomplished over the course of the planning period. In some cases, specific strategies or examples are provided to further explain the objectives. These items are provided in bulleted lists below the associated objective. More detailed Action Plans will be developed on an ongoing basis that delineate specific strategies, projects, activities and measurements for determining success.

Goal 1: Financially Sustainable System

Develop a sustainable management model for existing facilities and develop a city-wide sustainable facility model that addresses the present and future needs of the City.

Objectives:

1. Provide an equitable distribution of aquatic facilities throughout the City of Austin, including but not limited to:
    - Support research and development in areas identified as deficient in aquatic facilities
    - Implement the recommendations of this Plan regarding the short- and long-term improvements, upgrades, consolidations, and decommissioning.
    - Utilize current demographic analysis as a key factor in the process to determine locations of upgraded, expanded, new, or decommissioned facilities.
2. Identify a variety of facility types to meet the diverse needs of residents, such as:
    - Provide aquatic facilities to offer year-round programming (see Goal 3)
    - Provide a balance of "neighborhood-based" and value driven aquatic "community" (multi-neighborhood) facilities that offer family and fitness oriented aquatic opportunities
3. Establish a system of aquatic facilities and programs at a higher level of management and economical sustainability over the long-term
4. Establish an organizational and support structure to maintain a more sustainable system
5. Establish closer relationships with the permitting agencies and departments to streamline the development process

Goal 2: Diverse Facilities

Provide a modern and safe aquatic system throughout the City.

Objectives:

1. Reduce pool closure occurrences due to maintenance issues as a result of the age of facilities, such as:
    - Bring all facilities, including associated buildings, parking, decks, etc. up to current standards and codes, such as ADA, health, safety and pool codes
2. Provide suitable aquatic facility infrastructure for use by public or private events, including:
    - Bathhouse facilities
    - Qualifying pool length(s)
    - Ample deck space
    - Mobility access to facility
    - Covered/shaded gathering spaces
    - Climate controlled staff areas
    - Upgraded restrooms and pool houses
3. Modernize existing facilities and develop new facilities to include features identified most in the community engagement process, such as, but not limited to:
    - Improved restrooms/pool houses
    - Shade
    - Wi-Fi
    - Slides
    - Shallow water play areas
    - Lap lanes
    - Climbing walls
    - Diving boards

Goal 3: Year-Round Facilities

Establish and maintain year-round facilities in key demographic service areas that provide maximum equitable access to aquatic environments and opportunities

Objectives:

1. Prepare a feasibility study to determine the scope, size, programming, and financial impact of indoor facility(s)
2. Provide year-round, heated outdoor recreation/lap pool facilities. Example:
    - Identify locations which will best support year-round outdoor programs, lessons, and lifeguard training
3. Develop indoor aquatic facilities to:
    - Enhance lifeguard training opportunities
    - Cultivate partnerships with educational organizations, such as AISD and other school districts serving Austin
    - Support local competitive swimming, water polo, synchronized swimming, etc.
    - Provide year-round programming (all ages)

- Expand drowning prevention and other water safety programs
- Reduce and limit weather-related impacts on aquatic programs

Goal 4: Progressive, Responsive Programming

Provide enhanced programming that responds to community input and that appeals to all user groups

Objectives:

1. Provide an equitable and enhanced distribution of aquatic programs throughout the City
2. Deliver enhanced aquatic programming services, such as:
    - Expand programs related to water safety, swim lessons, fitness, and leisure recreation.
    - Provide new and trending programs as desired by the community (examples: scuba, kayaking, paddle boarding, yoga, etc.)
3. Expand year-round programming at an indoor facility
4. Increase swim event opportunities for aquatic events and competitions
5. Maintain and expand community outreach relating to Aquatic Programs offered city-wide
6. Develop an annual survey to assist in determining what future programming may be desired

Goal 5: Enhanced Operational Support

Provide aquatic focused maintenance facilities and develop operational procedures to support a sustainable aquatic system

Objectives:

1. Standardize mechanical components and equipment for renovated and proposed facilities throughout the system to achieve ease of maintenance and operation procedures of aquatic facilities and to reduce cost for inventory, such as:
    - Create an inventory of standard mechanical components and aquatic equipment for ease of replacement, maintenance, and repair
2. Allocate and designate a central aquatic system facility that would provide an opportunity to store aquatic equipment, make repairs, and house aquatic maintenance staff, while also providing a closer connection between aquatic and maintenance staff
3. Mentor, train, and support existing and future aquatic mechanic/maintenance staff
4. Procure and support the acquisition of additional aquatic mechanic staff
5. Support, develop, cross-train, and mentor aquatic staff in the maintenance and operations of aquatic facilities

Goal 6: Foster Partnerships

Foster partnership opportunities to complement and enhance the aquatic system

Objectives:

1. Develop and expand aquatic partnerships with local educational entities and organizations who may want to include aquatics as part of their curriculum or activities offered
2. Expand partnerships to increase swimming abilities and water safety
3. Increase and enhance outreach to promote aquatic programs and water safety

Goal 7: Recruit & Retain High Performance Staff

Hire, train, and secure retention of developed aquatic staff

Objectives:

1. Train, mentor and maintain a dedicated aquatic staff at all levels
2. Continually evaluate hiring practices and procedures to improve and expand the Aquatic Staff, such as:
    - Develop and foster relationships with Corporate City of Austin Human Resources and PARD Human resources in the hiring of lifeguards and other aquatic staff as needed
    - Automate administrative hiring practices for seasonal lifeguards
3. Establish and hire the needed quantity of full time lifeguard employees to support a year-round aquatic system
4. Implement procedures and policies to enhance recruitment of lifeguard staff, such as:
    - Continue to sponsor and provide non-fee based lifeguard training
    - Sponsor and provide a no-cost alternative to supply lifeguards with uniforms and equipment
    - Consider paying or reimbursement for lifeguard training
5. Adapt and procure permanent 'front line' staff for utilization at aquatic facilities and to omit the demand for lifeguards from performing other duties, such as:
    - Establish and implement flexible front line staff positions throughout PARD structure that can be utilized at aquatic facilities
6. Improve lifeguard staff experience and retention during the operating season by improving environmental conditions and amenities at each aquatic facility, such as:
    - Provide lifeguard break/safety rooms with environmental controls
    - Improve quality and quantity of shading at facilities for lifeguards
    - Provide free of charge, sun protection material and apparel
    - Provide access to ice and cold water

Goal 8: Environmental Sustainability

Provide facilities that maximize environmental sustainability and energy efficiency

Objectives:

1. Upgrade and standardize facilities and procedures with more efficient aquatic facility design which takes advantage of technology, such as:
    - Auto-fill
    - Variable speed pumps
    - Improved chemical controllers
2. Design facilities using Leadership in Energy and Environmental Design (LEED) and/or Sustainable Sites Initiatives (SITES) principles, such as:
    - Upgrade systems to provide a potential reduction of water use
    - Design landscapes for low water use and low maintenance levels
    - Utilize stormwater best management practices

5

POOL CLASSIFICATIONS

5.1 Introduction

Currently, the City of Austin is served by five categories of aquatic facilities: Neighborhood Pools, Municipal Pools, Wading Pools, a Waterfront Pool, and Spraygrounds. The sizes vary a great deal depending on design intent. The text below describes the current pool types and then illustrates the proposed prototypical recommended facility types.

5.2 Current Pool Classifications and Characteristics

5.2.1 Municipal Pools

- Charge a fee
- Are typically larger and have more features than the free Neighborhood Pools, such as 50 meter length (Northwest, Garrison, and Mabel Davis), diving boards, slides (Springwoods), shade, zero depth entry (Bartholomew and Springwoods), or other water features
- Typically offer swim lessons and swim teams
- Include bathhouses at the pool
- Some may be open for extended swim seasons

5.2.2 Neighborhood Pools

- Free to the public
- Are typically smaller pools with fewer features and should typically have a maximum length of 25 yards (Ramsey and Stacy are 33 meters)
- May have bathhouses at the pool or restrooms nearby in the park
- Some offer swim teams and swim lessons
- Do not offer diving boards
- Westenfield is the newest Neighborhood Pool and includes:
- A bathhouse (meets current standards)
- Zero depth entry

- Shallow and deep water
- Shade

5.3 Recommended Pool Classifications and Descriptions

The public engagement process identified that the community desires a variety of facility types, sizes, and features. Various types of facilities were presented at two focus groups and four public workshops in the summer of 2016 with general approval. At those meetings, participants reviewed the facility classifications and used templates to identify potential arrangements throughout the City to represent an equitable distribution of facilities to serve the growing participation. The groups clearly preferred a mixture of Neighborhood, Community, and Regional Pools with a clear need for indoor facilities for year-round programs and training.

Table 5.1 identifies the various pool classifications in tabular format. Figures 5.1 through 5.6 graphically illustrate the features of the varying classifications of aquatic facilities. These classifications are intended to help start the conversation, when a new facility is to be developed. Engagement between the Parks and Recreation Department, surrounding neighborhoods, and community-wide aquatic interests groups will be necessary to identify the type, size, and features that are most desired for a specific location.

Table 5.1: Aquatic Facility Classifications

	Neighborhood	Community	Regional	Indoor	
Aquatic Facility Designation	**Neighborhood**	**Community**	**Regional**	**Premier - City-Wide (Indoor)**	**Community Indoor**
Defining Criteria					
Service Radius	1 mile	3 Miles	5 miles	City-wide	5 miles
Travel Time	20 minute walk	10 minute drive	15 minute drive	30 minute drive	15 minute drive
Facility Acreage	1 to 2	2 to 4	5 plus	10 min	2 to 4
Combined Surface Area of Water for site (Sq. Ft.)	3,000 - 5,000	5,000 - 7,000	7,000 - 12,000	15,000 plus	5,000 to 7,000
Bathhouse	Fixtures as Req.	Fixtures as Req.	Fixtures as Req.	Fixtures as Req.	Fixtures as Req.
Family Changing Rooms	Min. of 1	Min. of 2	Min. of 2	Min. of 2	Min. of 2
Mechanical/Chemical	per water volume - separate systems per contained body of water	per water volume - separate systems per contained body of water	per water volume - separate systems per contained body of water	per water volume - separate systems per contained body of water	per water volume - separate systems per contained body of water
Gutter system	Yes	Yes	Yes	Yes	Yes
Skimmer system	Small wading pool only	Small wading pool only	Small wading pool only		No
Life Guard Room	1 doubles as First Aid Room	1 doubles as First Aid Room	1 min.	per program elements	1
First Aid Room	Combined with Life Guard Room	Combined with Life Guard Room	1 min.	per program elements	1
Office	Yes	Yes	Yes	Yes	Yes
Lap/Recreation Pool					
Indoor/Outdoor	Outdoor	Outdoor	Outdoor	Indoor/outdoor	Indoor
length	75'	25 meters	75' or 50 meter	50 meters x 25 yards	6 lanes x 25 yards
Min Depth	42"	42"	42"	7'	42"
Max Depth	7' - 9'	10'	10'	10'	10'
# of Lanes	4 to 6	6 to 8	6-12	10 min	6 to 8
(min. 8'-0") Lane Width	Industry standard	Industry Standard	Industry Standard	Industry Standard	Industry Standard
Activity/Wading Pool					
Surface Area Sq Ft	800 - 1,500	1,200 - 2,000	2,000 - 3,000	Optional	No
Min Depth	No wading pool Zero depth entry	No wading pool Zero depth entry	Zero depth entry		
Max Depth	30"	30"	30"		

	Neighborhood	Community	Regional	Indoor	
Aquatic Facility Designation	**Neighborhood**	**Community**	**Regional**	**Premier - City-Wide (Indoor)**	**Community Indoor**
Water Playground	No	No	Optional	No	No
Aerobics/Program Pool - Larger Facility					Optional
Surface Area Sq Ft	N/A	N/A	900-1,000	1,000 - 1,600	1,000 - 1,600
Min Depth	N/A	N/A	42"	42"	42"
Max Depth	N/A	N/A	10'	10'	10'
With ramp and stair entry	N/A	N/A	Yes	Yes	Yes
Diving Well					
Indoor/Outdoor	not applicable	not applicable	Outdoor	Indoor	Indoor
Max Depth	not applicable	not applicable	16'	As Required	As Required
Width	not applicable	not applicable	Per Code plus 5' both sides	Per Code plus 5' both sides	Per Code plus 5' both sides
1 Meter Board	not applicable	not applicable	Per program	Per program	0 to 1
3 Meter Board	not applicable	not applicable	Per program	Per program	No
1 Meter Platform	not applicable	not applicable	Per program	Per program	No
3 Meter Platform	not applicable	not applicable	Per program	Per program	No
7 Meter Platform	not applicable	not applicable	Per program	Per program	No
10 Meter Platform	not applicable	not applicable	Per program	Per program	No
Features					
Open or closed flume slide	No	Optional	Per program	No	Optional
Tot slide	No	Optional	Per program	No	Optional
Zero depth entry	Yes	Yes	Per program	No	Optional
Interactive play features	No	Optional	Per program	No	Optional
Splash pad	No	Optional	Per program	No	Optional
Aerobics Pool	No	No	Per program	Yes	Optional
Climbing Wall	No	Optional	Per program	No	Optional
Group pavilions (outdoor)	No	Optional	Yes	No	No
Shades Structures	1 - 2	2 - 3	2 - 4	No	No
Meeting/Training/Party Room	No	Optional	1	2 Min.	1
Spectator area	No	Yes	Yes	Yes	Optional
Parking (per code)	ADA only required	50 Minimum	100 - 150 Minimum	200 Minimum	100 Minimum
Programming (minimum)					
Swim Lessons	Optional	Yes	Yes	Yes	Yes
Water Aerobics	Optional	Optional	Yes	Yes	Yes
Swim Team	Optional	Yes	Yes	Yes	Yes
Site Requirements					
Transit Access	Not required	Within 3 blocks	Required	Required	Required
Sanitary Sewer	8"	8"	8"	8"	8"
Potable Water Service (minimum)	4"	4"	4"	4"	4"
Non-Potable Water (for irrigation)	Desired	Desired	Desired	Desired	Desired
3 Phase Electric	Required	Required	Required	Required	Required
Road Access	Residential	Collector or higher	Collector or higher	Major Arterial	Collector or higher
Recreation Center on site	Optional	Optional	Optional	Optional	Desired
COATN City Fiber	Yes	Yes	Yes	Yes	Yes
Aerators	Yes	Yes	Yes	Yes	Yes
Parking	ADA only required	50 Minimum	100 - 150 Minimum	200 Minimum	100 Minimum

Desired site characteristics for new or expanded facilities: Low environmental sensitivity; no 25 or 100 year floodplain; zoned "P"; no erosion hazard buffer; no resource buffers; urban watershed regulation area; no endangered species; and located within 100' of a roadway.

5.3.1 Neighborhood Pools

Neighborhood Pools (Figure 5.1) will continue to serve the area within a 20-minute walk or about one mile. These facilities will remain free to the public and provide basic services. Westenfield is a good example of a new Neighborhood Pool that meets the criteria identified in Table 5.1. To remain in operation, several existing Neighborhood Pools will require new or expanded pool houses, improved access to the pool and pool houses.

5.3.2 Community Pools

Community Pools (Figure 5.2) will be somewhat larger than Neighborhood Pools and have additional amenities to serve a larger market area or roughly a ten-minute drive. These facilities may charge a fee and will be designed to better host programs and swim teams. In addition to the facilities at a Neighborhood Pool, these pools may provide some of the following amenities (depending on budget and desires of the surrounding neighborhoods): waterslide, tot slide, interactive water play features, splash pad, climbing wall, diving boards, group pavilions, and a room for meetings, parties, and training. The lap pool may be connected to the activity pool as shown on Figure 5.2 or be separated for a larger facility (as at Westenfield). A minimum of 50 parking spaces should be provided.

5.3.3 Regional Outdoor Aquatic Centers

Two types of Regional facilities are recommended, which will vary greatly based upon the capabilities of the site and the desired features of the region of the City. Each will serve approximately a five-mile radius or 15-minute drive time. The primary difference between the type types will be the presence of 50-meter length for the larger facilities, which lends to more fitness, exercise, and competition uses. Both types would include a room for party rentals, training, and meetings.

25-Yard Option

Regional center with 25-yard pools (Figure 5.3) will have a total water surface in the range of 7,000 to 10,000 square feet. Bartholomew is an example of this type of pool as shown on Figure 5.3, but lessons learned since opening Bartholomew indicate that these pools should have more lap lanes (5-6 minimum) and more deck and grass beach area. The increased capacity should allow income from concessions to generate revenue.

50-Meter Option

Regional centers with 50-meter pools will be larger in the range of 10,000 to 12,000 square feet with 50-meter lap lane length as shown in Figure 5.4. In addition to the 50-meter lap lanes, the aquatic facility would feature a wading or shallow water activity pool, a diving area, shade structures, a variety of other features, and a minimum of 150 parking spaces.

5.3.4 Indoor Facilities

Premium Indoor Aquatic Center

A Premium Indoor Aquatic Center (Figure 5.5) would serve both community and regional use by hosting swimming and diving meets. The facility would include a large competitive lap pool with stadium seating as well as a smaller warm water pool for warm-ups and programming. Diving could be located in one of these tanks or a separate tank. The larger water bodies would allow a variety of year-round programming, such as paddle boarding, kayaking, and more.

Ideally this facility would be developed with partners such as AISD, health providers, and other interested entities that would be enticed by the facility's regional attraction and potential to draw tourists. This facility must be located with easy access to major highways to serve both Austin and the Central Texas region.

Community Indoor Pool

Community Indoor Pool (Figure 5-6) would be a smaller indoor facility located on the opposite side of Austin from the Premier Indoor Aquatic Center in order to provide equity and easy access for all Austin residents. This facility would be geared to local uses such as lifeguard training, swim lessons, rental use, recreational lap swimming, swim team practices, and much more. The main pool would be 25 yards by 8 or more lap lanes.

Figure 5.1: Neighborhood Pools

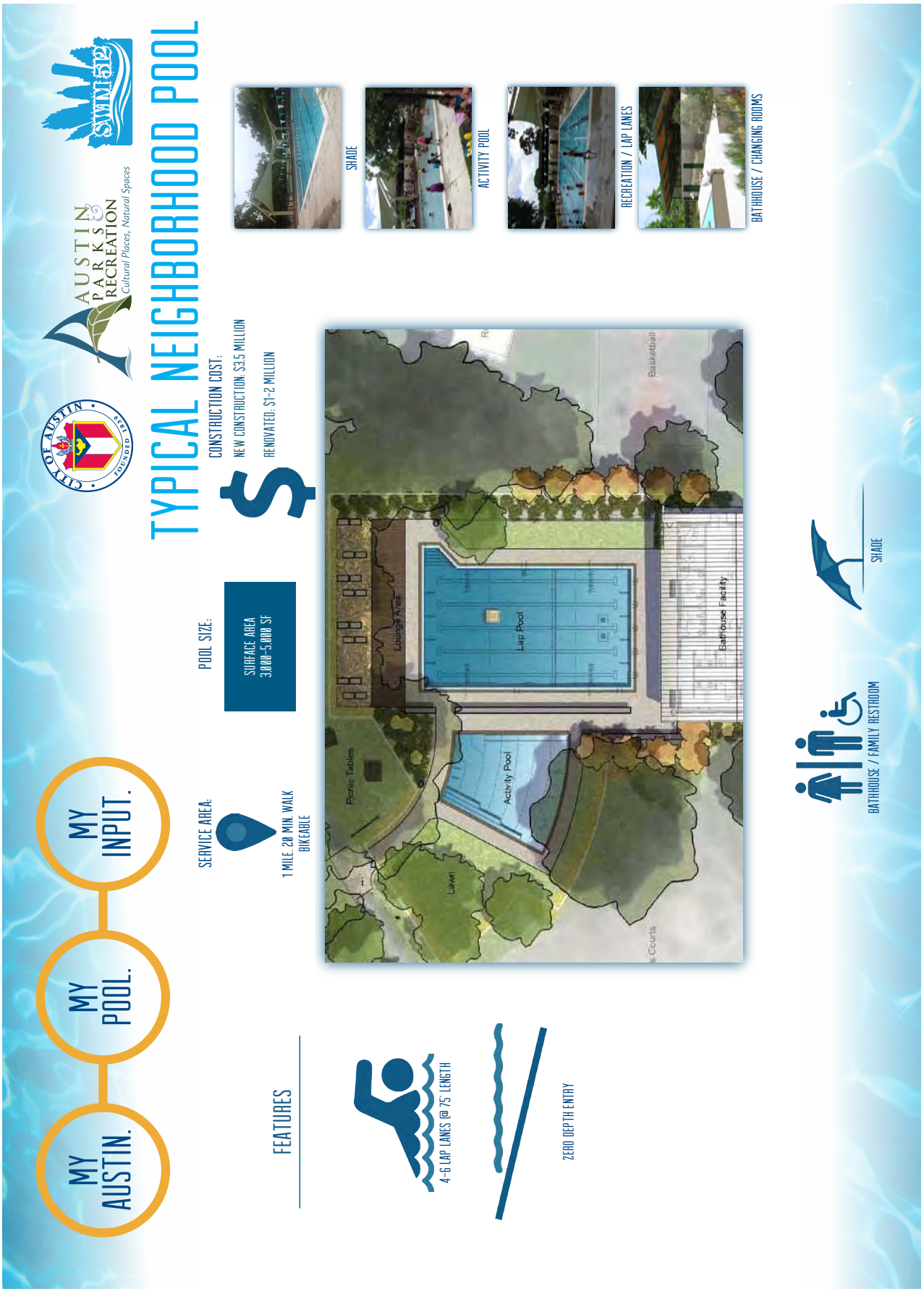


Figure 5.2: Community Pools

MY AUSTIN. MY POOL. MY INPUT.

AUSTIN PARKS & RECREATION
Cultural Places, Natural Spaces

SWIM512

TYPICAL REGIONAL AQUATIC CENTER

25 YARD OPTION

SERVICE AREA:

5 MILES. 15 MIN. DRIVE

POOL SIZE:

SURFACE AREA
7,000-10,000 SF

CONSTRUCTION COST:

NEW CONSTRUCTION: $7-8 MILLION

RENOVATED: $4-6 MILLION

FEATURES

6-8 LAP LANES @ 75' LENGTH

ACTIVITY POOL W/ INTERACTIVE FEATURES

LARGE WATER SLIDE

WADING POOL

LARGE WATER SLIDE

LAP LANES

ACTIVITY POOL

BATHHOUSE / FAMILY RESTROOM

GROUP PAVILION

SPRAYGROUND

ZERO DEPTH ENTRY

1 METER DIVING BOARD

CHASE LOUNGE

SHADE

TRAINING / PARTY ROOM

CONCESSIONS

Figure 5.3: Regional Center with 25 Yard Pools

MY AUSTIN. MY POOL. MY INPUT.

TYPICAL REGIONAL AQUATIC CENTER

50 METER OPTION

SERVICE AREA:

5 MILES. 15 MIN. DRIVE

POOL SIZE:

SURFACE AREA
10,000–12,000 SF

CONSTRUCTION COST:

NEW CONSTRUCTION: $8–10 MILLION

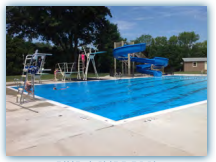
RENOVATED: $5–7 MILLION

FEATURES

8–12 LAP LANES
@ 50 METERS LENGTH

ACTIVITY POOL

SMALL WATER SLIDE



DIVE / SLIDE POOL

50 METER LAP POOL

WADING POOL

AEROBICS / PROGRAM POOL

BATHHOUSE / FAMILY RESTROOM

GROUP PAVILION

SPRAYGROUND

ZERO DEPTH ENTRY

DIVING BOARD

CHASE LOUNGE

SHADE

TRAINING/ PARTY ROOM

CONCESSIONS

Figure 5.4: Regional Centers with 50 Meter Pools

Figure 5.5: Community Indoor Pool

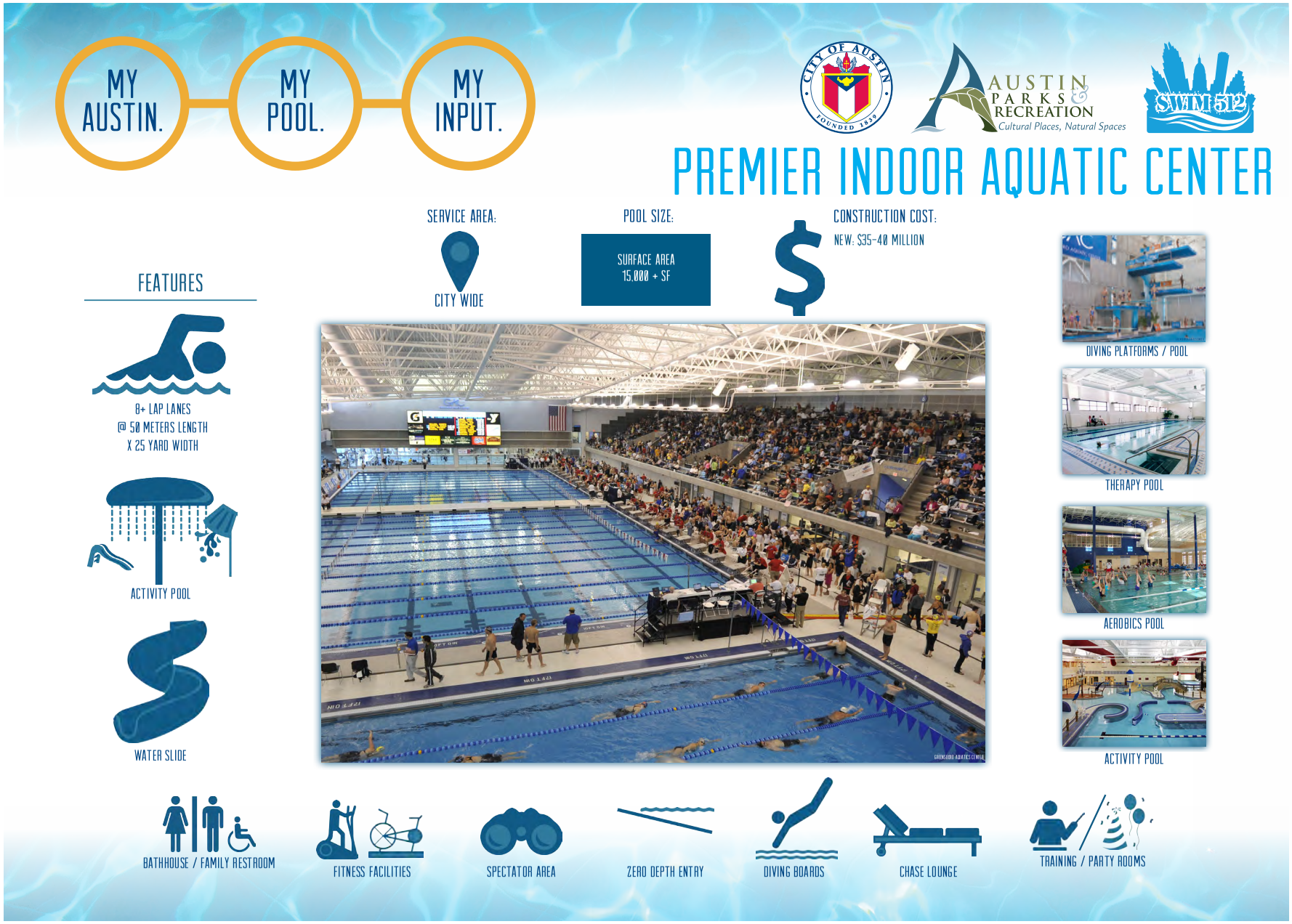


Figure 5.6: Premier Indoor Aquatic Centers

6

SUSTAINABLE AQUATIC SYSTEM

6.1 Introduction

The definition of sustainability from the City of Austin - Office of Sustainability is the following:

"Sustainability means finding a balance among three sets of goals:

- prosperity and jobs,
- conservation and the environment, and
- community health, equity, and cultural vitality.

It means taking positive, proactive steps to protect Austin's quality of life now, and for future generations."

6.2 Sustainable Aquatic System

In relation to the Austin Aquatic System, sustainability should be applied on several fronts, including the following:

Facilities

1. Are equitably accessible throughout the City with consideration to neighborhoods with high social needs, underserved areas, and future growth trends.
2. Plans for the functional life of a facility at 25 to 30 years maximum and determines the potential for renovation or decommissioning after the functional life.
3. Provides facilities that exemplify environmental sustainability and energy efficiency.
4. Are up to current standards and codes, such as ADA, health, safety and pool codes (including associated buildings, parking, decks, etc.).
5. Conserve water.

Budget/Cost

1. Operates within approved budget parameters.
2. Generates revenue to an established percent of operating expenses.

Staffing

1. Are operated by a manageable number of staff – a quantity that the City is able to train, hire, and retain to keep the pools open for the desired seasons and hours.
2. Offers a comfortable working environment.
3. Promotes institutional knowledge of systems by hiring and retaining qualified water safety, maintenance, and administrative staff.
4. Plans for succession and upward mobility of staff for retainage purposes.

Maintenance/Operations

1. Provides a clean and safe pool and bathhouse environment for patrons and staff.
2. Plans and budgets for scheduled equipment maintenance and replacement.
3. Is maintained in an efficient manner by:
    - Providing a centralized facility for maintenance
    - Providing adequate storage of equipment
    - Standardizing all equipment used system-wide
    - Incorporating state of the art computerized, remote monitoring of mechanical systems in the pool facilities
4. Minimizes unexpected capital costs and unplanned pool closures due to equipment failure.

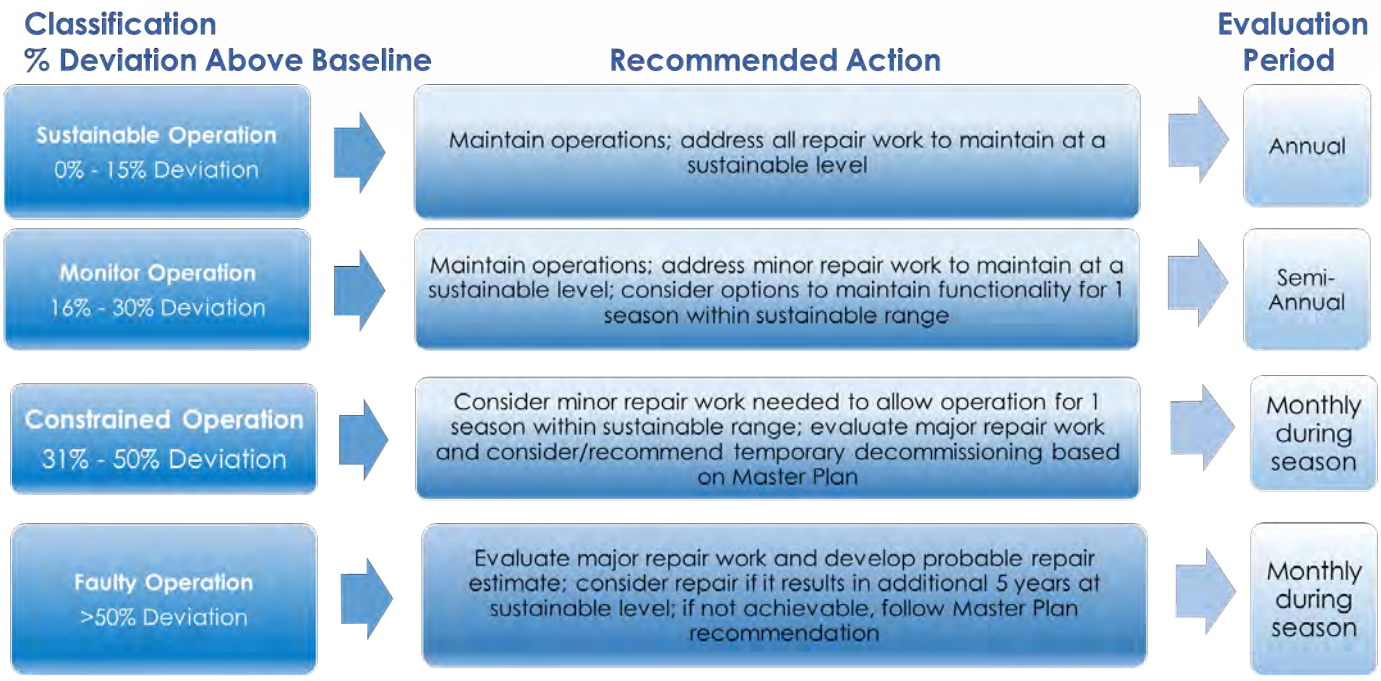
Programming

1. Provides facilities that are conducive to hosting a variety of programs to meet various user needs
2. Provides indoor year-round facilities for training, fitness and programming
3. Provides unique and trending programming opportunities to attract new customers not traditionally served and reflects growing population demographics (i.e., single adults, baby boomers, etc.)
4. Utilizes partnerships to promote water safety, programs, and to enhance outreach
5. Instills the value of aquatics in future generations through youth programs and community engagement

These aspects of sustainability must be monitored regularly to maintain a sustainable system. To accomplish this, baselines must be established where possible. Figure 6.1, Aquatic Facility Sustainability, identifies levels of deviation from the baseline with recommended actions once that threshold is reached, and the required period of evaluation for monitoring the condition. Baseline values must be established for each benchmark category, and these values should be updated annually as new data becomes available. The actions recommended in the Aquatic Facility Sustainability table apply when a pool reaches the indicated deviation in any benchmark category. The process outlined in Figure 6.1 is activated when a threshold is reached in any of the five benchmark categories.

- A 15% deviation above the baseline indicates a slightly elevated condition that should be monitored annually to determine if the condition continues to worsen.
- A 16% to 30% deviation above the baseline indicates a condition that should be monitored semi-annually with the minor repairs made to improve the condition.
- A 31% to 50% deviation above the baseline indicates a failing system that should be monitored monthly. The cost of major repairs should be evaluated against the long-term recommendation for the pool based upon the Site Suitability Ranking Process. If the amount of repairs is too costly, the long-term recommendation should be implemented, whether that includes redevelopment, renovation, replacement, consolidation with improvements at a nearby pool, or decommissioning.
- A deviation of above 50% indicates a faulty condition that must be remedied immediately. If the condition cannot be remediated and brought up to a sustainable level for the next five years, then the long term recommendation should be implemented.

Figure 6.1: Aquatic Facility Sustainability



6.3 Benchmark Categories

Not all information that is desirable for benchmarking is currently available; however, the missing data (actual cost per participant figures) will eventually become available as a result of this Master Plan. The current (2017) baseline values for Water Use, Attendance, Annual Maintenance Repairs, and Demographics can be implemented immediately and are presented in Tables 6.1 through 6.4. The data needed for the final baseline value, Actual Cost per Participant, will be available in the near future and can be used to complete the final Sustainability Benchmark threshold table. The five categories representing factors that should be used for benchmarking a sustainable system are described below.

6.3.1 Water Use

The baseline for this category (Table 6.1) pertains to the overall cost as the wastewater and drainage fees are also based upon water use. Actual gallons used were factored instead of the water cost as the rates may vary. Excessive water use also indicates a leak in the system, either in the pipes or walls. If these factors are repaired, the pool may be reclassified. Currently, the median value of all operational pools is used as a baseline, but with more new pools coming on line in the near future, the newer and more efficient pools should be used as the baseline.

It should be noted that some pools water usage numbers include other portions of the park. Therefore, a more consistent system of monitoring the water use specifically for each pool should be developed. Examples include locations where District Parks or Recreation Center usage may be lumped into the pool water use or where an irrigation meter was monitored (Walnut Creek, Dove Springs, Montopolis, and Mabel Davis).

6.3.2 Attendance

Declining attendance may be indicative of several factors, such as a poor location, changing demographics, difficulty of access, undesirable conditions, etc. For this initial analysis, the baseline (Table 6.2) is the median of attendance of all pools using a factor of pool capacity to actual summer season attendance over the three-year period from 2014 through 2016.

Table 6.1: Water Use Thresholds

					Summer 2016[1]	
POOL	Current Facility Type	Pool Size (gallons)	Volume per 1,000 gal	Square Feet of Pool	Water Used (gallons)	Water Used per 1,000 Gallon Pool Volume
Ramsey	Neighborhood	145,000	145	3,800	28,300	195
Dottie Jordan	Neighborhood	151,257	151	4,550	41,000	271
Westenfield	Neighborhood	123,071	123	4,393	88,000	715
Bartholomew	Municipal	231,382	231	7,740	318,000	1,374
Dick Nichols	Neighborhood	383,905	384	10,463	624,000	1,625
Martin	Neighborhood	203,000	203	4,880	401,000	1,975
Dittmar	Neighborhood	258,000	258	6,531	767,700	2,976
Northwest (50m)	Municipal	578,945	579	15,642	2,058,300	3,555
Balcones	Neighborhood	128,000	128	4,583	495,700	3,873
Kennemer	Neighborhood	160,000	160	4,224	666,000	4,163
Springwoods	Municipal	115,192	115	4,400	625,500	5,430
Montopolis	Neighborhood	203,000	203	4,880	1,204,400	5,933
Rosewood	Neighborhood	300,000	300	8,670	1,821,000	6,070
Walnut Creek	Municipal	584,308	584	14,951	3,575,200	6,119
Garrison (50m)	Municipal	557,356	557	14,486	3,434,000	6,161
West Austin	Neighborhood	44,250	44	1,500	289,000	6,531
Mabel Davis (50m)	Municipal	506,800	507	11,717	3,462,400	6,832
Murchison	Neighborhood	160,000	160	4,224	1,125,700	7,036
Brentwood	Neighborhood	72,000	72	2,731	588,000	8,167
Patterson	Neighborhood	75,404	75	2,731	625,000	8,289
Reed	Neighborhood	75,404	75	2,731	645,000	8,554
Little Stacy	Wading	14,025	14	1,500	123,900	8,834
Big Stacy	Neighborhood	200,500	201	4,000	2,214,700	11,046
Metz	Neighborhood	145,000	145	3,992	2,176,000	15,007
Gillis	Neighborhood	144,340	144	2,550	3,058,000	21,186
Givens	Neighborhood	464,450	464	1,220	10,642,000	22,913
Dove Springs	Neighborhood	269,169	269	11,365	6,209,800	23,070
Parque Zaragoza	Neighborhood	169,980	170	3,992	4,243,000	24,962
Civitan	Neighborhood	72,000	72	3,515	2,167,000	30,097
Shipe (with wading pool)	Neignborhood	159,025	159	5,250	5,660,000	35,592
Govalle	Neighborhood	72,000	72	2,400	12,723,000	176,708
Canyon Vista (Water paid by RRISD	Neighborhood	212,625	213	3,280		
				Median		**6,531**
				Average		**15,008**
				15% over Median		7,511
				30% over Median		8,490
				50% over Median		**Over 9,797**

1. Data Source: Table of monthly water and wastewater bills from Austin Water, provided by PARD Aquatics Division

2. Summer 2016 = Data from bills covering the months of May (when pools are filled) through August. Actual dates of meter readings vary.

Table 6.2: Attendance Thresholds

			2014		2015		2016		2014-2016	
POOL	Square Feet of Pool	Capacity[1]	Summer Total	Capacity Ratio	Summer Total	Capacity Ratio	Summer Total	Capacity Ratio	3 Year Average	Average / Capacity Ratio
Westenfield	4,393	293	36,316	124.00	27,850	95.09	22,288	76.10	28,818	98.40
Bartholomew	7,740	475	31,743	66.85	54,437	114.64	52,982	111.58	46,387	97.69
Big Stacy	4,000	217	31,525	145.41	25,268	116.55	5,790	26.71	20,861	96.22
Deep Eddy	21,329	1,222	91,004	74.48	117,119	95.85	108,402	88.71	105,508	86.35
Ramsey	3,800	216	16,405	75.82	17,178	79.39	16,326	75.45	16,636	76.89
Brentwood	2,731	182	13,237	72.70	11,533	63.34	11,405	62.64	12,058	66.23
Dittmar	6,531	398	25,379	63.84	27,401	68.92	23,559	59.26	25,446	64.01
Shipe[2]	5,250	292	13,000	44.56	19,429	66.59	13,866	47.53	15,432	52.89
Dick Nichols	10,463	621	38,401	61.82	31,726	51.07	27,142	43.69	32,423	52.20
Canyon Vista[3]	3,280	169	10,606	62.67	8,960	52.95	6,411	37.88	8,659	51.17
Balcones	4,583	324	15,407	47.62	14,774	45.66	14,392	44.48	14,858	45.92
Martin	4,880	277	15,790	56.94	12,703	45.80	8,672	31.27	12,388	44.67
Metz	3,992	218	11,037	50.60	7,939	36.40	9,756	44.72	9,577	43.91
Rosewood	8,670	478	24,932	52.16	18,505	38.71	15,182	31.76	19,540	40.88
Dottie Jordan	4,550	279	14,212	50.92	7,391	26.48	10,989	39.37	10,864	38.92
Northwest (50m)	15,642	975	49,310	50.59	24,639	25.28	35,981	36.91	36,643	37.59
Little Stacy	1,500	100	5,745	57.45	4,331	43.31	1,048	10.48	3,708	37.08
Dove Springs	11,365	691	27,637	40.00	28,278	40.92	16,578	23.99	24,164	34.97
Patterson	2,731	182	7,409	40.69	7,585	41.66	3,753	20.61	6,249	34.32
Murchison	4,224	256	12,600	49.17	4,262	16.63	9,253	36.11	8,705	33.97
Springwoods	4,400	293		0.00		0.00	9,652	32.90	9,652	32.90
West Austin	1,500	100	3,294	32.94	2,606	26.06	2,992	29.92	2,964	29.64
Garrison (50m)	14,486	859	26,889	31.30	22,936	26.70	25,625	29.83	25,150	29.28
Gillis	2,550	143	5,129	35.92	4,051	28.37	2,861	20.04	4,014	28.11
Montopolis	4,880	277	8,020	28.92	7,756	27.97	7,340	26.47	7,705	27.78
Reed	2,731	182	5,581	30.65	5,057	27.78	4,269	23.45	4,969	27.29
Govalle	2,400	160	6,385	39.91	4,243	26.52	2,396	14.98	4,341	27.13
Walnut Creek	14,951	626	15,721	25.10	10,287	16.42	18,924	30.21	14,977	23.91
Kennemer	4,224	257	6,510	25.35	5,059	19.70	5,404	21.04	5,658	22.03
Givens	11,920	745	14,990	20.12	17,267	23.18	9,770	13.11	14,009	18.80
Parque Zaragoza	3,992	213	4,856	22.82	3,497	16.43	3,464	16.28	3,939	18.51
Mabel Davis (50m)	11,717	604	13,599	22.51	9,386	15.54	10,479	17.35	11,155	18.46
Civitan	3,515	160	5,210	32.56	2,508	15.68	782	4.89	2,833	17.71

Median	**37.08**
Average	**44.12**
0% to 15% over Median	31.52
15% to 30% over Median	25.96
30 to 50% over Median	18.54
More than 50% over Median	Under 18.54

1. Capacity = Deep water at 25 s.f. per person, shallow water at 15 s.f. per person, and diving area at 300 s.f. per person.
2. Includes wading pool

6.3.3 Annual Maintenance Repairs

The need for multiple unexpected or mandated pool repairs is indicative of a failing system. The annual maintained repair costs for 2009-2016, as well as the anticipated costs for 2017, can be seen in Table 6.3 with the median cost representing the baseline.

Table 6.3: Annual Maintenance Repair Thresholds

			2009-2016	2017	2009-2017
POOL	Current Facility Type	Square Feet of Pool	2009-2016 Repairs[1]	2017 Anticipated Rapairs[1]	Total 2009-2017 Repairs
Bartholomew	Municipal	7,740		$0	$0
Canyon Vista	Neighborhood	3,280	$26,254	$696	$26,950
Little Stacy	Wading	1,500	$14,500	$750	$15,250
Big Stacy	Neighborhood	4,000	$149,295	$915	$150,210
Westenfield	Neighborhood	4,393		$1,250	$1,250
Rosewood	Neighborhood	8,670	$1,035,387	$2,484	$1,037,871
Martin	Neighborhood	4,880	$1,159	$3,435	$4,594
Dottie Jordan	Neighborhood	4,550	$23,050	$3,538	$26,588
Dove Springs	Neighborhood	11,365	$2,500	$3,654	$6,154
Reed	Neighborhood	2,731	$129,976	$3,975	$133,951
West Austin	Neighborhood	1,500	$410,386	$5,200	$415,586
Balcones	Neighborhood	4,583	$2,000	$5,370	$7,370
Murchison	Neighborhood	4,224	$110,954	$5,893	$116,847
Dick Nichols	Neighborhood	10,463	$3,000	$6,576	$9,576
Ramsey	Neighborhood	3,800	$7,800	$6,842	$14,642
Kennemer	Neighborhood	4,224	$70,583	$7,362	$77,945
Montopolis	Neighborhood	4,880	$19,226	$7,517	$26,743
Dittmar	Neighborhood	6,531	$1,881	$7,804	$9,685
Civitan	Neighborhood	3,515		$8,631	$8,631
Gillis	Neighborhood	2,550	$34,938	$8,806	$43,744
Mabel Davis (50m)	Municipal	11,717	$4,970	$10,419	$15,389
Brentwood	Neighborhood	2,731	$5,212	$10,524	$15,736
Givens	Neighborhood	1,220	$55,919	$11,060	$66,979
Garrison (50m)	Municipal	14,486	$546,883	$12,068	$558,951
Patterson	Neighborhood	2,731	$31,586	$28,934	$60,520
Northwest (50m)	Municipal	15,642	$387,989	$28,998	$416,987
Parque Zaragoza	Neighborhood	3,992	$143,762	$39,230	$182,992
Metz	Neighborhood	3,992	$129,749	$41,813	$171,562
Walnut Creek	Municipal	14,951	$36,642	$48,890	$85,532
Govalle	Neighborhood	2,400	$31,498	$85,232	$116,730
Shipe	Neignborhood	5,250	$14,500	$93,984	$108,484
Springwoods	Municipal	4,400			$0
		Median	**3,431,599**	**$7,362**	**$35,347**
		Average		**$16,189**	**$122,920**
		0% to 15% over Median		$8,466	$40,649
		15% to 30% over Median		$9,571	$45,951
		30 to 50% over Median		$11,043	$53,021
		More than 50% over Median		**Over $11,043**	**Over $53,021**

1. Source: Austin PARD Aquatic Division Maintenance St
2. Includes wading pool

6.3.4 Demographics

This baseline, which can be seen in Table 6.4, should be reevaluated approximately every five years to analyze any demographic shifts in the areas surrounding each pool. The demographic characteristics within a 20-minute walk of Neighborhood Pools and a 10-minute drive of Community Pools should be analyzed and compared to the data collected as part of the Site Suitability Ranking Process to identify any shifts in population. If the total population or number of children shifts considerably, then that change should be factored into a pool's long-term recommendation.

Table 6.4: Demographic Thresholds

	20-Minute Walk		10-Minute Drive		Average Ratio
POOL	Population	Ratio to Median	Total	Ratio to Median	
Kennemer	16,168	2.2	150,730	1.4	1.8
Shipe	14,473	2.0	145,122	1.4	1.7
Patterson	9,453	1.3	166,328	1.6	1.4
Parque Zaragoza	11,770	1.6	116,922	1.1	1.3
Rosewood	11,688	1.6	115,620	1.1	1.3
Westenfield	8,854	1.2	133,500	1.3	1.2
Gillis	11,195	1.5	94,032	0.9	1.2
Brentwood	8,526	1.2	118,118	1.1	1.1
Big Stacy	8,814	1.2	112,262	1.1	1.1
Montopolis	8,865	1.2	109,324	1.0	1.1
Garrison	7,227	1.0	131,337	1.2	1.1
Mabel Davis	4,944	0.7	162,915	1.5	1.1
Bartholomew	7,406	1.0	126,444	1.2	1.1
Murchison	9,819	1.3	89,236	0.8	1.1
Balcones	5,045	0.7	148,656	1.4	1.0
Givens	7,199	1.0	110,419	1.0	1.0
Metz	7,816	1.1	97,098	0.9	1.0
Dove Springs	9,870	1.3	66,337	0.6	1.0
Walnut Creek	1,715	0.2	179,317	1.7	1.0
Dottie Jordan	7,475	1.0	95,246	0.9	1.0
West Austin	7,759	1.0	81,072	0.8	0.9
Dittmar	4,932	0.7	110,049	1.0	0.9
Ramsey	5,806	0.8	96,523	0.9	0.8
Little Stacy	7,512	1.0	72,106	0.7	0.8
Civitan	5,407	0.7	102,077	1.0	0.8
Martin	6,029	0.8	92,993	0.9	0.8
Springwoods	3,857	0.5	123,518	1.2	0.8
Govalle	5,426	0.7	97,008	0.9	0.8
Northwest	5,888	0.8	85,683	0.8	0.8
Dick Nichols	5,568	0.8	76,293	0.7	0.7
Canyon Vista	4,624	0.6	69,673	0.7	0.6
Deep Eddy	2,814	0.4	93,485	0.9	0.6
Colony Park	5,735	0.8	41,680	0.4	0.6
Reed	3,765	0.5	68,029	0.6	0.6
Median	**7,406**	**1.0**	**105,701**	**1**	**1.0**

0% to 15% over Median	0.8
15% to 30% over Median	0.7
30 to 50% over Median	0.5
More than 50% over Median	**Under 0.5**

6.3.5 Actual Cost per Patron (Future)

It is also recommended that additional metrics be collected to determine the Actual Cost per Participant. Although these metrics are not currently available, a table should be created to indicate the actual total cost of operation per pool divided by the summer attendance. Cost factors should include all utilities, chemicals, maintenance, and labor costs for pool staff, including a portion of the administration. It is the Consultant's understanding that new work order data for repairs and chemical use is currently being recorded for this purpose.

Cost Per Participant Factors

PARD Aquatic Division should keep accurate records of all expenses allocated to individual pools, which should include the following costs but may include others. Costs should be included for the summer swim season, including May (fill month), June, July, and August. Repair costs should be on an annual basis because repairs/maintenance may take place in the off-season.

- Utility Costs (summer season)
  - Water
  - Wastewater
  - Stormwater/Drainage
  - Electric
  - Cable/Wi-Fi
- Chemical Costs (summer season)
- Staff Costs (summer season)
  - Lifeguards
  - Managers
  - Attendants
  - Portion of Administration Staff
- Maintenance Costs (full year)
  - Scheduled repairs and maintenance
  - Unscheduled repairs and maintenance
  - Maintenance supplies

These costs should be used to develop a total cost per pool and then compared to the actual attendance for the summer swim season (total costs divided by actual attendance). The summer season should be used because all pools are open at that time, whereas only a few pools are open in the off-season. This process provides a common denominator for accurate comparisons. The table and process for evaluation will be similar to the other Sustainability Benchmark tables, where the median is developed and the deviation above the median is measured.

In addition, this data will allow the calculation of total cost per gallon of pool volume which can then be used to compare to pools in Austin and throughout the country.

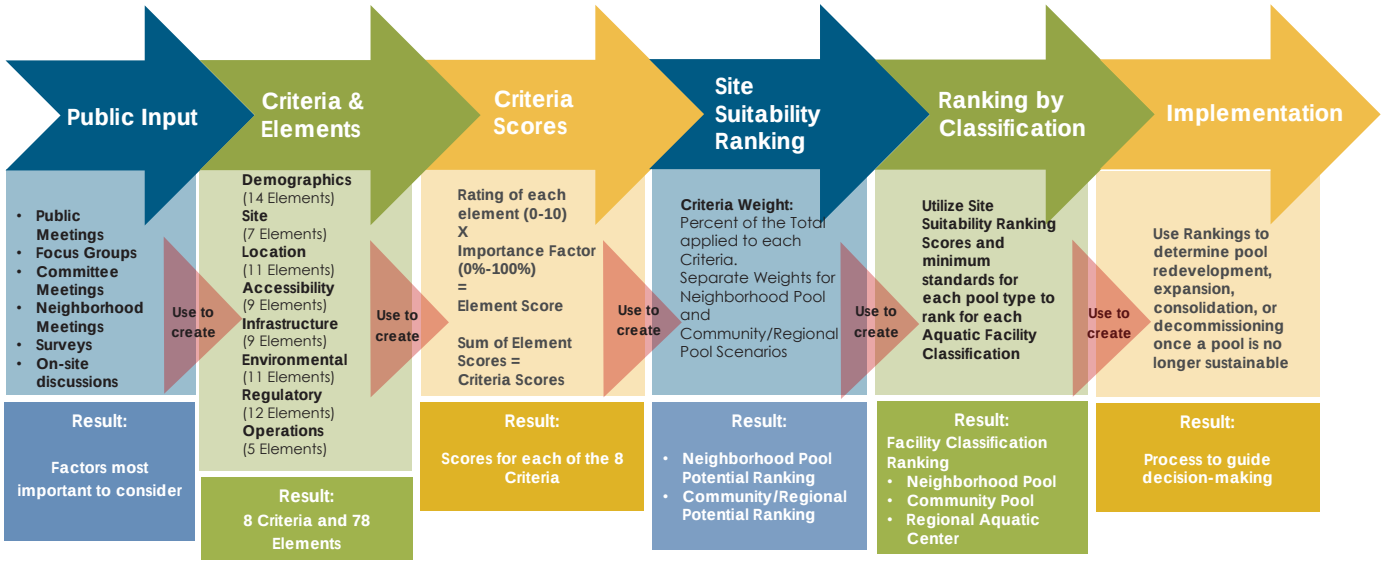
7 SITE SUITABILITY RANKING PROCESS

7.1 Introduction

The Site Suitability Ranking Process was developed to outline and illustrate the process by which existing and potential aquatic facilities will be assessed for potential improvements by the City of Austin Parks and Recreation Department (PARD). The results of this process will provide a method to rate facilities for future opportunities. The process was also formulated so that it could be applied to future sites under consideration for the development of an aquatic facility. The potential future site at Colony Park was also included in the analysis, while Barton Springs, the currently closed pools, and the sprayground sites were excluded. The process also allows for the adjustment of ratings when conditions at a site change. Throughout the process, a higher score was always assigned to a result (criteria or element) that was more desirable for development or redevelopment of the site.

The flow chart in Figure 7.1 illustrates and summarizes the steps of the process for determining Site Suitability Rankings for each site. The process incorporates both the input gathered from the public plus an extensive amount of data relevant to the assessment of a site for development or redevelopment as an aquatic facility.

Figure 7.1: Site Suitability Flow Chart



7.2 Data Sources and Descriptions

The following text provides background for the data sources included in this process. The Site Suitability Ratings Key (Table 7.1) provides the source of the data for each element in this analysis with the rating from 1 to 10 assigned to the data range of potential values.

7.2.1 Aerial

Aerial imagery provided by Google Earth was used to measure the approximate size of each site and to determine the presence of several elements, including Entrance/Drive, Walkways, and Crosswalks. This imagery was also used to measure the distance between the site and pool entrance (Sub-Chapter E) and between the pool and the restrooms (Restrooms).

7.2.2 Assessment

The data for the Operations criterion was derived from the Aquatic Facilities Needs Assessment that was completed by BCI in 2014 plus commentary from PARD maintenance staff. This data can be seen in Table 7.11.

7.2.3 Austin Energy

The data for the number of electric phases was provided by Austin Energy.

7.2.4 Austin Water Utility

Austin Water Utility provided information for Water, Reclaimed Water, and Wastewater utilities. Measurements were then made using ArcGIS software.

7.2.5 Calculated

Calculated refers to Attendance/Capacity Ratio and Service Area Overlap (20 Min. Walk). Attendance/Capacity Ratio was calculated by dividing total capacity (calculated based on aerial measurements of pool and site) by annual attendance (provided by PARD). Service Area Overlap was calculated using ArcGIS to determine the percentage of each service area that overlapped with the service area of another pool.

7.2.6 CAMPO

CAMPO (Capital Area Metropolitan Planning Organization) provided data for traffic volume on streets in Austin. The data was used for the Heavily Trafficked Roadways element and was accessed through the organization website (http://www.campotexas.org/).

7.2.7 COA GIS

COA GIS refers to GIS data provided by the City of Austin, which was downloaded from the city website (http://www.austintexas.gov/department/gis-and-maps). This data was used to determine the presence of specific conditions in or near each site.

7.2.8 COATN

COATN (City of Austin Telecommunications Network) data was used to determine the presence or potential for the City's fiber optic network.

7.2.9 ESRI Business Analyst

Most of the demographic data used in this process was provided by ESRI Business Analyst for 20-minute walk and 10-minute drive time areas of each pool site.

Table 7.1: Site Suitability Ratings Key

Criteria Element	Neighborhood or Community/Regional	Data Source	Rating										
			10	9	8	7	6	5	4	3	2	1	0
Demographics													
20-Minute Walk													
Children	Both	ESRI Business Analyst	Over 3,000	2,750	2,500	2,250	2,000	1,750	1,500	1,250	1,000	750	500 or Less
Seniors	Both	ESRI Business Analyst	Over 1,000	930	860	790	720	650	580	510	440	370	300 or Less
Total Population	Both	ESRI Business Analyst	12,000	11,000	10,000	9,000	8,000	7,000	6,000	5,000	4,000	3,000	2,000 or Less
Median Household Income	Both	ESRI Business Analyst	Under $30,000	$37,000	$44,000	$51,000	$58,000	$65,000	$72,000	$79,000	$86,000	$93,000	Over $100,000
Population Growth (5-Year)	Both	ESRI Business Analyst	Over 1,000	900	800	700	600	500	400	300	200	100	0
Social Needs and Conditions Index	Both	Assessment	175 or More	160	145	130	115	100	85	70	55	40	30 or Less
10-Minute Drive													
Children	Both	ESRI Business Analyst	Over 30,000	27,500	25,000	22,500	20,000	17,500	15,000	12,500	10,000	7,500	5,000 or Less
Seniors	Both	ESRI Business Analyst	Over 12,000	11,000	10,000	9,000	8,000	7,000	6,000	5,000	4,000	3,000	2,000 or Less
Total Population	Both	ESRI Business Analyst	Over 150,000	135,000	120,000	105,000	90,000	75,000	60,000	45,000	30,000	15,000	10,000 or Less
Median Household Income	Both	ESRI Business Analyst	Under $30,000	$34,000	$38,000	$42,000	$46,000	$50,000	$54,000	$58,000	$62,000	$66,000	Over $70,000
Population Growth (5-Year)	Both	ESRI Business Analyst	Over 15,000	14,000	13,000	12,000	11,000	10,000	9,000	8,000	7,000	6,000	5,000 or Less
Capacity (based on surface area)	Both	Aerial	Over 800	730	660	590	520	450	380	310	240	170	100 or Less
Attendance (5-Year Avg.)	Both	PARD	Over 50,000	45,000	40,000	35,000	30,000	25,000	20,000	15,000	10,000	5,000	2,000 or Less
Attendance/Capacity Ratio	Both	Calculated	Over 100	90	80	70	60	50	40	30	20	10	0
Site Conditions													
Entrance/Drive	Both	Aerial	Yes										No
Parking Spaces (Count)	Neighborhood	Assessment	Over 20	18	16	14	12	10	8	6	4	2	0
	Community/Regional	Assessment	Over 150	140	130	120	110	100	80	60	40	30	20 or Less
Site Area (Acres)	Neighborhood	Aerial	1 or Larger		0.75			0.5			0.4		<.3
	Community/Regional	Aerial	5 or Larger		4			3			2		<2
Grade Constraints	Community/Regional	COA GIS	Low		Low-Mod			Moderate			Mod-Severe		Severe
Health, Safety, Welfare Issues	Both	PARD (See Table)	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
Designated Historical Features (Count)	Both	PARD GIS	0		1			2					4 or more
Historical Structure (Pool House or Pool)	Both	Assessment	No		1970s		1960s		1950s		1940s	1930s	Yes
Location													
Heavily Trafficked Roadways (Traffic Counts)	Both	CAMPO	0	4,000	8,000	12,000	16,000	20,000	24,000	28,000	32,000	36,000	Over 40,000
Distance from Road	Both	Aerial	Over 500	450	400	350	300	250	200	150	100	50	Less than 50
Railroads	Both	COA GIS	None					Light Rail					Freight
Flight Zones (Noise Level - Decibels)	Both	COA GIS	None			65				70			75
Competing Elements (Count)													
Other PARD Aquatic Facilities (20 Min. Walk)	Both	PARD GIS	0					1					2
Service Area Overlap (20 Min. Walk)	Both	Calculated	0	10	20	30	40	50	60	70	80	90	100
Private Aquatic Facilities (20 Min. Walk)	Both	PARD GIS	0					1					2
Programs by HOA/Private Orgs. (20 Min. Walk)	Both	PARD GIS	0					1					2
Symbiotic Elements (Count)													
Schools/Daycare Providers (5 Minute Walk)	Both	PARD GIS	4 or more		3			2			1		0
Recreation Centers (5 Minute Walk)	Both	PARD GIS	2 or more					1					0
Other Park Amenities (5 Minute Walk)	Both	PARD GIS	20 or more	18	16	14	12	10	8	6	4	2	0
Accessibility													
Adjacent Roadway Class	Neighborhood	COA GIS	Collector or Higher					Local			Park		
	Community/Regional	COA GIS	Major Arterial or Higher		Minor Arterial			Collector			Local		Park
Transit Access	Both	COA GIS	At Pool		5-Minute Walk					10-Minute Walk			No
Pedestrian Connectivity													
Walkways/Trails	Both	Aerial/PARD GIS	Many					Some			Minimal		None
Crosswalks	Both	Aerial	Yes					Some					None
Traffic Controls	Both	Google Street View	Yes										None
Overall	Both	Multiple	Excellent			Good				Fair			Poor
Bicycle Connectivity													
Lanes	Both	PARD GIS	All		Many			Some					None
Trails (Count)	Both	PARD GIS	2 or More Trails					1 Trail					None
Overall	Both	Multiple	Excellent			Good				Fair			Poor

Criteria Element	Neighborhood or Community/Regional	Data Source	Rating										
			10	9	8	7	6	5	4	3	2	1	0
Infrastructure													
Electric Service Provider	Both	COA GIS	Austin Energy										Other
Electric Service (Phases)	Both	Austin Energy	Three Phase					Two Phase					Single Phase
Water (Dist. to 4" Line in ft.)	Both	Austin Water	At Site		Within 300			300-1000			Over 1000		None
Reclaimed Water (Dist. in ft.)	Both	Austin Water	At Site		Within 300			300-1000			Over 1000		None
Wastewater (Dist. to 8" Sewer Line in ft.)	Both	Austin Water	At Site		Within 100			100-300		300-500			None
Pool Condition	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent
Bathhouse Condition	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent
Storage Conditions	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent
COATN Service Area (Wi-Fi)	Both	COATN	Current		Potential								No
Environmental													
Trees (Number)													
2" to 19" in Diameter	Both	PARD GIS	0	10	20	30	40	50	60	70	80	90	100 or more
19" to 24" in Diameter	Both	PARD GIS	0	2	4	6	8	10	12	14	16	18	20 or more
Over 24" in Diameter (Including Heritage)	Both	PARD GIS	0	2	4	6	8	10	12	14	16	18	20 or more
Grow Zones	Both	COA GIS	No										Yes
Aquifer Recharge	Both	COA GIS	No										Yes
Pollinator Habitat	Both	COA GIS	No										Yes
Wetlands	Both	COA GIS	No										Yes
Rock Outcrop	Both	COA GIS	No										Yes
Springs	Both	COA GIS	No										Yes
Environmental Sensitivity	Both	COA GIS	Low					Medium					High
Soil Suitability	Both	COA GIS	Not Limited				Somewhat Limited			Very-Somewhat Limited			Very Limited
Regulatory													
Flood Zones													
25-Year Floodplain	Both	COA GIS	No										Yes
100-Year Floodplain	Both	COA GIS	No										Yes
500-Year Floodplain	Both	FEMA	No										Yes
Zoning Designation	Both	COA GIS	P, UNZ		P-NP		P-H-NP	P-HD-NCCD-NP					I-RR, SF-2, SF-3
Sub-Chapter E (Distance from Road in ft.)	Both	Aerial	50 or Less	100	150	200	250	300	350	400	450	500	Over 500
Erosion Hazard Review Buffer	Both	COA GIS	No										Yes
Resource Buffers	Both	COA GIS	No										CEF Buffer
Watershed Regulation Areas	Both	COA GIS	Urban	Suburban Development			Suburban Water Supply			Water Supply Rural			Barton Springs
Water Quality Zones	Both	COA GIS	No					Transitional					Critical
Endangered Species	Both	USFWS	No										Yes
Bathhouse	Both	Assessment	Yes					Restroom					No
Restrooms (Distance from Pool in ft.)	Both	Aerial	At Pool		50			75			100		Over 150
Operations													
Maintenance Staff/Equipment Ease of Access	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent
Simplicity of Equipment	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent
Equipment Condition/Replacement Cost	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent
Lawn/Landscaped Area	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent
Employee Safety Measures	Both	Assessment	Excellent			Good		Fair			Poor		Nonexistent

7.2.10 FEMA

FEMA data for Effective Floodplain was used for the 500-year floodplain area, which were not included in COA GIS data.

7.2.11 Google Street View

Google Street View was used to verify the presence of traffic control devices near each site and as part of the overall analysis of pedestrian and bicycle connectivity.

7.2.12 Parks and Recreation (PARD)

This data was provided directly by the Austin Parks and Recreation Department (PARD). Some information was provided in spreadsheet format, and other information consisted of construction drawings of existing pools.

7.2.13 PARD GIS

PARD GIS refers to spatial data collected and provided directly by the Parks and Recreation Department.

7.2.14 USFWS

Data provided by the US Fish and Wildlife Service was used to determine whether sites included areas considered to be part of the ranging area of endangered species.

7.3 Criteria and Elements

The text in this section defines and summarizes the criteria and elements included in the Site Suitability Ranking Process.

7.3.1 Demographics (Table 7.2)

The Demographics criterion evaluates each aquatic facility site based on the existing and potential users of the pool. This criterion is important because the purpose of an aquatic facility is to serve users in Austin. Accordingly, an analysis of the characteristics of these potential users is essential. The elements in this criterion represent a collections of population-based, need-based (equity), and user-based metrics.

20-Minute Walk

A 20-minute walk represents the longest walk range in common use for measuring walkability. This range was chosen to include the largest amount of residents likely to walk to a pool. Additionally, these facilities have limited parking, so users are expected to arrive using some other mode of transportation. In general, 5 and 10 minute walk times are more commonly used to measure walkability. However, a pool visit represents a longer visit, so residents are more likely to walk a longer distance. Portland, Oregon, for example, uses a 20-minute walk to define walkability in neighborhoods (20-Minute Neighborhood Concept). This model, which also includes other factors, has been used in other cities including Detroit, MI; Eugene, OR; and Baltimore, MD. A recent article on the AARP website describes "20-Minute Villages" with a goal of having all basic needs within a 20-minute travel time, preferable by walking. According to the article, destinations should be a 5-, 10-, or 20-minute walk, depending on the travel purpose.[1]

- **Children**

  Families with children represent the largest user group for aquatic facilities, so more children lead to a higher rating. Children need places to play and keep cool, particularly during the summer months. More children yields a higher rating.

[1] Walljasper, J. (2017, February). Welcome to the 20-Minute Village. Retrieved July 17, 2017, from http://www.aarp.org/livable-communities/livable-in-action/info-2017/20-minute-village.htm

Table 7.2: Demographics

Demographics	20-Minute Walk						10-Minute Drive					Pool Attendance		
	Children	Seniors	Total	Median Household Income	Population Growth	Social Needs Index	Children	Seniors	Total	Median Household Income	Population Growth	Capacity	Attendance (5-Year Avg.)	Attendance/ Capacity Ratio
Balcones	853	464	5,045	$79,577	279	55	28,988	13,230	148,656	$55,629	11,786	324	17,248	53.3
Bartholomew	1,526	755	7,406	$60,986	1,156	97	25,289	9,863	126,444	$38,098	11,447	475	71,105	149.7
Big Stacy	1,507	987	8,814	$59,376	725	111	21,330	8,644	112,262	$41,615	12,554	217	70,432	324.9
Brentwood	1,236	1,006	8,526	$58,184	809	92	24,687	10,513	118,118	$42,412	8,731	182	13,178	72.4
Canyon Vista	1,170	689	4,624	$109,267	280	59	14,213	7,246	69,673	$71,830	5,536	101	10,172	100.5
Civitan	1,687	384	5,407	$28,303	600	185	24,090	7,247	102,077	$33,325	11,745	160	3,911	24.4
Colony Park	2,030	304	5,735	$33,337	683	180	12,921	3,501	41,680	$37,229	4,715	N/A	N/A	N/A
Deep Eddy	346	253	2,814	$84,213	267	41	13,088	9,255	93,485	$64,725	8,938	1,222	154,364	126.3
Dick Nichols	1,392	601	5,568	$101,693	293	88	18,310	7,095	76,293	$82,038	6,663	621	46,189	74.4
Dittmar	1,090	449	4,932	$54,016	255	131	24,211	9,904	110,049	$55,260	11,426	345	29,800	86.3
Dottie Jordan	1,824	867	7,475	$46,534	814	143	24,478	7,715	95,246	$37,785	8,597	279	17,689	63.4
Dove Springs	3,247	523	9,870	$41,038	826	172	19,636	3,317	66,337	$38,658	6,610	691	30,914	44.7
Garrison	1,366	1,127	7,227	$51,454	609	117	27,055	11,952	131,337	$51,271	12,539	859	26,256	30.6
Gillis	2,217	1,019	11,195	$52,113	1,226	142	16,738	7,334	94,032	$46,300	10,492	143	5,237	36.7
Givens	1,713	957	7,199	$37,253	830	148	22,194	9,165	110,419	$28,253	10,969	690	17,034	24.7
Govalle	1,552	629	5,426	$36,615	682	157	22,021	7,761	97,008	$25,053	11,393	160	6,646	41.5
Kennemer	5,012	873	16,168	$31,233	454	186	36,024	12,661	150,730	$41,349	11,466	257	6,948	27.1
Little Stacy	1,172	661	7,512	$63,812	528	89	13,195	4,687	72,106	$40,858	8,553	100	6,420	64.2
Mabel Davis	1,038	257	4,944	$33,137	584	182	36,330	11,404	162,915	$39,955	16,725	604	13,521	22.4
Martin	1,013	838	6,029	$42,584	568	141	15,716	6,138	92,993	$28,873	10,099	277	13,491	48.6
Metz	1,673	954	7,816	$36,659	548	157	20,682	6,797	97,098	$36,195	11,235	218	8,851	40.6
Montopolis	2,837	638	8,865	$28,346	1,011	188	26,128	7,981	109,324	$33,899	12,755	277	9,842	35.5
Murchison	1,384	1,139	9,819	$52,777	763	61	17,133	12,136	89,236	$63,123	6,974	256	9,585	37.4
Northwest	1,078	942	5,888	$69,205	480	94	16,451	8,911	85,683	$49,223	6,838	975	52,590	54.0
Parque Zaragoza	3,084	1,165	11,770	$33,947	970	148	22,332	8,068	116,922	$36,011	13,133	213	5,317	25.0
Patterson	1,560	690	9,453	$49,903	1,530	77	30,272	12,142	166,328	$36,074	15,202	182	8,346	45.8
Ramsey	726	430	5,806	$51,034	437	34	11,197	7,529	96,523	$43,185	8,787	216	18,275	84.5
Reed	1,001	708	3,765	$141,677	107	28	7,687	5,987	68,029	$51,812	5,534	182	8,393	46.1
Rosewood	2,782	1,029	11,688	$37,397	1,421	123	24,165	8,093	115,620	$37,533	13,420	478	20,743	43.4
Shipe	1,187	695	14,473	$36,339	1,037	112	22,494	10,594	145,122	$28,069	13,438	292	16,981	58.2
Springwoods	663	312	3,857	$62,462	643	92	27,915	11,487	123,518	$75,028	14,654	293	3,035	10.3
Walnut Creek Park	352	211	1,715	$57,679	82	79	27,794	12,373	179,317	$48,843	16,945	626	16,863	26.9
West Austin	644	714	7,759	$68,329	1,006	62	8,026	5,918	81,072	$52,433	7,552	100	2,576	25.8
Westenfield	1,505	974	8,854	$92,134	765	37	16,287	11,882	133,500	$56,266	11,841	293	22,110	75.5

Table 7.3: Capacity

Pool Name	Deck Space S.F.	Total Main Pool S.F.	Pool Perimeter L.F.	Wading Pool S.F.	Deep Water S.F.[1]	Diving Area S.F.	Shallow Water S.F.	Deep Water Capacity at 1 person /25 S.F.	Diving Area Capacity at 1 person /300 S.F.	Shallow Water Capacity at 1 person/15 S.F.	Total Capacity
Balcones	3,500	4,853	314				4,853	0	0	324	324
Bartholomew	13,340	7,740				650	7,090	0	2	473	475
Big Stacy	2,700	4,000	280		1,870		2,130	75	0	142	217
Brentwood	2,700	2,400	200	331			2,731	0	0	182	182
Canyon Vista	5,400	3,280	245			1,854	1,426	0	6	95	101
Civitan	1,350	2,400	200				2,400	0	0	160	160
Colony Park	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA
Deep Eddy	7,800	21,329	630		7,500		13,829	300	0	922	1222
Dick Nichols	2,925	9,848	420	615	2,863		7,600	115	0	507	621
Dittmar	1,710	6,531	455			1,420	5,111	0	5	341	345
Dottie Jordan	5,350	4,230	302	320	908		3,642	36	0	243	279
Dove Springs	6,435	10,540	425	825	2,500		8,865	100	0	591	691
Garrison	8,114	12,275	480	2,211		1,685	12,801	0	6	853	859
Gillis	1,798	2,550	205		1,020		1,530	41	0	102	143
Givens	3,200	10,700	500	1,220		1,660	10,260	0	6	684	690
Govalle	603	2,400	200				2,400	0	0	160	160
Kennemer	4,836	4,224	300		930		3,294	37	0	220	257
Little Stacy	960	1,500	160				1,500	0	0	100	100
Mabel Davis	7,833	11,717	465		873	2,427	8,417	35	8	561	604
Martin	5,970	4,880	308		1,800		3,080	72	0	205	277
Metz	2,569	3,992	275		1,800		2,192	72	0	146	218
Montopolis	5,820	4,880	308		1,800		3,080	72	0	205	277
Murchishon	4,026	4,224	300		950		3,274	38	0	218	256
Northwest	10,508	13,392	528	2,250		1,075	14,567	0	4	971	975
Parque Zaragoza	2,674	3,992	275		2,000		1,992	80	0	133	213
Patterson	1,484	2,400	200	331			2,731	0	0	182	182
Ramsey	2,844	3,800	258		1,386		2,414	55	0	161	216
Reed	3,500	2,400	200	331			2,731	0	0	182	182
Rosewood	3,800	8,670	386		3,750		4,920	150	0	328	478
Shipe	3,200	4,000	280	1,250	2,184		3,066	87	0	204	292
Springwoods	5,000	4,400	325				4,400	0	0	293	293
Walnut Creek Park	7,081	10,643	485	576		1,920	9,299	0	6	620	626
West Austin	2,655	1,500	120				1,500	0	0	100	100
Westenfield	2700	4393	382				4,393	0	0	293	293

1. Non-diving area over 5' depth.
2. Utilizes Texas Department of Health *Standards for Swimming Pools and Spas* 25 TAC Section 265.184
3. Civitan wading pool closed

- **Seniors**

  Seniors represent a growing population that, like children, are likely to be free to use aquatic facilities during the day on weekdays. Seniors today are increasingly requesting access to fitness activities, often provided by parks and recreation departments. A higher number of seniors leads to a higher rating.

- **Total Population**

  Residents living near a pool represent the most likely users of the facility. Demand for a facility tends to increase with the size of the nearby population, so larger populations receive a higher rating.

- **Median Household Income**

  Lower income households are more likely to rely on public pools over private facilities, so a lower median income results in a higher rating.

- **Population Growth (5-Year)**

  Growth in population will result in an increase in demand for facilities. Accordingly, a higher growth rate leads to a higher rating.

- **Social Needs and Conditions Index**

  The Social Needs Index value was calculated in ArcGIS using the scores originally presented in Aquatic Facilities Needs Assessment. The Census Tract values from the assessment were adjusted to fit the 20-minute minute walk areas using the "Intersect" function with higher need resulting in a higher rating.

  The complete Social Needs and Conditions Index can be found in Appendix B. The process considered the following seven factors:

  - Household income
  - Poverty
  - Single parent households
  - Education level
  - Unemployment
  - Crime
  - Population density

  A higher level of need corresponds to a higher rating for this element.

10-Minute Drive

Industry standards are less apparent for drive times than for walk times. However, survey results consistently indicate that approximately (90%) of users are willing to drive between 5 and 30 minutes for park facilities. As a result, a 5-minute drive would be applicable to the most frequent and short-term uses. Only around 5% of respondents indicate a willingness to travel over 30 minutes, so that represents the high end of service areas.

During the assessment, fifty percent (50%) of Austin aquatic users responded that they currently drive between 20 and 30 minutes to use facilities. Most of the remaining users (44%) traveled less than 10 minutes. Approximately 50% of residents indicated a willingness to drive between 5 and 15 minutes and roughly 30% indicated a willingness to drive up to 30 minutes.

Therefore, a 10-minute drive time was used for a community pool (or larger) because a larger pool has more amenities, and, as a result, residents will likely be willing to travel a greater length of time to use these pools. (A 20-minute walk is similar to a 5-minute drive). The local users (within 10-minutes) will represent the more frequent users and are, therefore, more important when considering the location of an aquatic facility.

- Children - See 20-Minute Walk elements
- Seniors - See 20-Minute Walk elements
- Total Population - See 20-Minute Walk elements
- Median Household Income - See 20-Minute Walk elements
- Population Growth (5-Year) - See 20-Minute Walk elements

Capacity (based on surface area)

The capacity of a pool represent the potential number of users that could be present at a given time, and, therefore, is helpful to measure the pool's potential to serve Austin residents (greater capacity increases rating). Table 7.3 shows how the capacity of the pools were calculated.

Attendance (5-Year Avg.)

The attendance over the previous five years indicated the actual level of use for a pool (rating increases with attendance). Improvements made at existing pools with high attendance will benefit a greater number of residents.

Attendance/Capacity Ratio

The Attendance/Capacity ratio shows how the measured attendance compares to the capacity (or potential attendance). A high Attendance/Capacity indicates that usage of the pool might be limited by the size. Accordingly, such a pool would benefit from expansion, so a higher ratio receives a higher rating.

7.3.2 Site Conditions (Table 7.4)

The Site Conditions criterion is critical because expansion of a facility has certain requirements. Additionally, some conditions make a site more conducive to development.

Entrance/Drive

This element refers to the presence or lack of a vehicle entrance (presence yields highest rating). One would need to be added if not present.

Parking Spaces (Count)

This element represents the total number of spaces present on the site (more spaces result in a higher rating). Additional spaces may be needed for an expanded facility.

Site Area (in Acres)

The total size of the site limits the potential for a larger facility. If the site lacks the required space, expansion is not possible. A larger site receives a higher rating.

Grade Constraints

The presence of steep slopes can make development difficult or completely unfeasible. Such conditions are measured from "low" to "severe" with "severe" receiving the lowest rating. Grade constraints are only considered for an expanded site (Community or Regional Pool).

Health, Safety, Welfare Issues

The scores used for Health, Safety, Welfare Issues were derived from data representing four different health and safety measurements. The values for this data are presented in Table 7.5.

Designated Historical Features (Count)

This element is a count of historical features on a site (rating decreases with more features). More features represent more areas that might need to be avoided or more features that could require relocation.

Historical Structure (Pool House or Pool)

Some of the pools and pool houses at Austin pools are designated historic, while others might be considered so by some residents based on their age. A historic structure would likely impose some limitations to modification or redevelopment. The age of structure results in a lower rating with designated historic receiving the lowest.

Site							
Pool Name	Entrance Drive	Parking Spaces (Count)	Site Area (Acres)	Grade Constraints	Health, Safety, Welfare Issues	Designated Historical Features (Count)	Historical Structure (Pool House or Pool)
Balcones	Yes	72	5.1	M-L	50%	0	No
Bartholomew	Yes	160	8.0	M	80%	0	No
Big Stacy	Yes	19	1.0	M-S	60%	4	1936 - early PARD building
Brentwood	No	1	1.4	L	68%	0	1954
Canyon Vista	Yes	130	0.2	S	60%	0	No
Civitan	No	0	0.5	L-M	60%	0	1964 - unique "atomic" architecture
Colony Park	Yes	0	6.0	L-M	NA	0	No
Deep Eddy	Yes	73	3.2	S	68%	10	Pool Historic
Dick Nichols	Yes	57	9.8	M	65%	0	No
Dittmar	Yes	110	1.1	S	60%	0	No
Dottie Jordan	Yes	27	0.9	L	43%	0	No
Dove Springs	Yes	62	3.3	L	60%	0	No
Garrison	Yes	39	4.0	M	35%	0	1966
Gillis	No	0	0.5	L-M	45%	0	1954
Givens	Yes	140	4.7	M-S	33%	0	1958
Govalle	No	2	1.5	L-M	58%	0	1954
Kennemer	Yes	32	0.7	L	70%	0	No
Little Stacy	No	0	0.2	L	45%	0	1936 - potentially historic district - Spanish Colonial
Mabel Davis	Yes	91	6.5	M-S	55%	1	No
Martin	Yes	19	1.3	L	53%	1	1977 - mural
Metz	Yes	22	1.5	L	60%	0	1934 - mural
Montopolis	Yes	32	2.4	L	53%	0	No
Murchison	Yes	34	1.5	L	70%	0	No
Northwest	Yes	191	6.4	M	43%	0	1956
Parque Zaragoza	No	2	0.7	L	53%	0	1932
Patterson	No	1	0.9	L	78%	0	1954 - mural
Ramsey	No	1	0.6	L	55%	0	1940
Reed	Yes	1	0.2	L	65%	2	1956
Rosewood	Yes	36	0.7	M-S	55%	1	1932
Shipe	No	0	0.4	L-M	53%	1	1934 - Historic District/Log Cabin - early PARD building
Springwoods	Yes	20	1.1	L	80%	0	No
Walnut Creek	Yes	76	4.6	M	55%	0	No
West Austin	No	0	0.2	M-S	65%	1	1930s - Historic District - early PARD building
Westenfield	No	0	0.6	L-M	88%	1	No

Table 7.5: Health and Safety Issues

Pool Name	Health Department Issues	ADA Accessibility Dollar Amount	ADA Score	Staff Safety	Chemical Storage Conditions	Total	Total Score (%)
Balcones	5	$49,440	5	5	5	20	50%
Bartholomew	10	$23,100	7	5	10	32	80%
Big Stacy	10	$172,850	0	7	7	24	60%
Brentwood	7	$7,000	10	5	5	27	68%
Canyon Vista	10	$26,900	5	2	7	24	60%
Civitan	5	$38,600	5	7	7	24	60%
Colony Park	NA	NA	NA	NA	NA	NA	NA
Deep Eddy	10	$30,040	5	5	7	27	68%
Dick Nichols	5	$22,750	7	7	7	26	65%
Dittmar	5	$34,650	5	7	7	24	60%
Dottie Jordan	5	$68,090	2	5	5	17	43%
Dove Springs	5	$16,630	7	7	5	24	60%
Garrison	2	$53,100	2	5	5	14	35%
Gillis	7	$13,600	7	2	2	18	45%
Givens	2	$24,150	7	2	2	13	33%
Govalle	7	$21,490	7	7	2	23	58%
Kennemer	7	$19,260	7	7	7	28	70%
Little Stacy	2	$23,770	7	7	2	18	45%
Mabel Davis	10	$44,090	5	2	5	22	55%
Martin	5	$22,430	7	2	7	21	53%
Metz	5	$20,980	7	7	5	24	60%
Montopolis	5	$20,240	7	2	7	21	53%
Murchison	7	$19,650	7	7	7	28	70%
Northwest	5	$28,000	5	2	5	17	43%
Parque Zaragoza	5	$56,650	2	7	7	21	53%
Patterson	10	$24,890	7	7	7	31	78%
Ramsey	5	$29,600	5	7	5	22	55%
Reed	10	$12,890	7	7	2	26	65%
Rosewood	10	$37,570	5	2	5	22	55%
Shipe	5	$19,320	7	7	2	21	53%
Springwoods	10	$5,600	10	7	5	32	80%
Walnut Creek Park	7	$39,050	5	5	5	22	55%
West Austin	7	$31,560	5	7	7	26	65%
Westenfield	10	$6,500	10	10	5	35	88%

Legend	
Health Department Issues - Issues needing correction according the the Environmental Health Services Division on 8/2/2016	
ADA Accessibility - Dollar amount from PARD Assessment	
Staff safety - Mainly pools where staff has to go down into pits score lower.	
Chemical Storage - Based on where the chemicals are stored and the condition of the enclosure.	
Scoring	**ADA Scoring**
10 Excellent - New - No Issues Noted	0 Over $75,000
7 Good	2 $50,000 - $75,000
5 Fair	5 $25,000 - $50,000
2 Poor	7 $10,000 - $25,000
0 Nonexistent	10 Less than $10,000
NA Not applicable	

7.3.3 Location (Table 7.6)

This criterion considers the location of a pool site with regard to adjacent elements and characteristics.

Heavily Trafficked Roadways (Traffic Counts)

For this element, high traffic roads are considered according to their capacity to generate and deliver noise and air pollution to the adjacent pool site. Additionally, this high traffic roads may be more difficult to cross. Traffic is counted based on average daily traffic volume with higher traffic resulting in a lower rating.

Distance from Road

The distance from the road reduces the impact of noise and air pollution from the adjacent roadway (rating increases with distance).

Railroads

Like roadways, railroads generate noise, particularly for freight lines. Light rail also generates some noise. This element indicates the presence of either light rail or freight within 500 ft. of the pool site. An adjacent freight railway results in the lowest rating.

Flight Zones (Noise Level)

Location within a flight zone also results in unwanted noise. This element measures the noise at the pool site from aircraft in decibels. Higher decibels lead to a lower rating.

Competing Elements (Count)

Competing Elements represent a count of facilities that serve similar needs for the same pool of residents (those living within a 20 minute walk of an Austin pool). Residents are unlikely to use the same program or facility offered by different agencies. Additionally, a resident cannot use two facilities at one time. The Service Area Overlap measurement evaluates how much of the 20 minute walk area is also served by another Austin pool. Additional competing amenities results in a lower rating.

- Other PARD Aquatic Facilities (20-Minute Walk)
- Service Area Overlap (Percentage of overlap within 20-Minute Walk area)
- Private Aquatic Facilities (20-Minute Walk)
- Programs by HOA/Private Orgs. (20-Minute Walk)

Symbiotic Elements (Count)

These Symbiotic Elements represent a count of adjacent amenities that bring people to the area near the pool, providing potential users who may visit the pool after using these other amenities. Additionally, a variety of amenities in one location increases the chances that a visitor will choose that location over others.

- Schools/Daycare Providers (5-Minute Walk)
- Recreation Centers (5-Minute Walk)
- Other Park Amenities (5-Minute Walk)

7.3.4 Accessibility (Table 7.7)

This criterion evaluates the aquatic facilities based on elements that affect access to the sites, including elements related to road access, transit access, and pedestrian and bicycle connectivity. These elements are important because they provide vital information about how efficiently and safely a site can be accessed.

Adjacent Roadway Class

A higher roadway class has the potential to provide access to a greater number of users more efficiently. Location adjacent to a busier road also provides additional exposure for the facility, which can lead to increased attendance.

Table 7.6: Location

Location					Competing Elements				Symbiotic Elements		
Pool Name	Heavily Trafficked Roadways (traffic count)	Distance from Road (feet)	Railroads	Flight Zones	Other PARD Aquatic Facilities (20 Min. Walk)	Service Area Overlap (20 Min. Walk)	Private Aquatic Facilities (20 Min. Walk)	Programs By HOA/ Private Orgs. (20 Min. Walk)	Schools/ Daycare Providers (5 Minute Walk)	PARD Recreation Centers (5 Minute Walk)	Other PARD Park Amenities (5 Minute Walk)
Balcones	10,010	543	None	None	0	0%	0	0	0	0	5
Bartholomew	15,020	132	None	None	0	33%	0	0	0	0	57
Big Stacy	3,690	183	None	None	1	83%	0	0	1	0	11
Brentwood	2,150	48	None	None	0	30%	0	0	1	0	13
Canyon Vista	2,190	370	None	None	0	0%	0	0	1	0	0
Civitan	3,170	50	None	None	1	88%	0	0	1	0	5
Colony Park	3,530	445	None	None	0	0%	0	0	1	1	5
Deep Eddy	17,060	509	None	None	0	75%	0	0	0	0	19
Dick Nichols	5,090	442	None	None	0	0%	1	1	0	0	15
Dittmar	8,170	225	None	None	0	0%	0	0	0	1	6
Dottie Jordan	2,890	170	None	None	0	0%	0	0	0	1	6
Dove Springs	8,150	1,310	None	None	0	0%	1	0	2	1	15
Garrison	27,560	584	None	None	0	0%	0	0	4	0	11
Gillis	25,490	118	None	None	1	37%	0	0	3	0	5
Givens	5,570	154	None	None	0	16%	0	0	0	1	13
Govalle	5,300	324	None	None	0	17%	0	0	0	0	8
Kennemer	10,280	52	None	None	0	0%	0	0	1	0	0
Little Stacy	190	240	None	None	1	83%	0	0	0	0	16
Mabel Davis	7,230	279	None	None	0	8%	0	0	0	0	6
Martin	N/A	108	None	None	1	74%	0	0	1	1	46
Metz	3,440	25	Inactive	None	1	90%	0	0	1	1	9
Montopolis	18,060	355	None	None	1	63%	0	0	0	1	8
Murchison	5,320	105	None	None	0	1%	2	1	4	0	0
Northwest	5,790	665	None	None	0	35%	0	0	0	0	18
Parque Zaragoza	7,180	681	Light Rail - At Grade	None	2	94%	0	0	0	2	10
Patterson	37,010	468	None	None	0	43%	2	1	0	0	23
Ramsey	11,880	441	None	None	0	16%	0	0	0	0	9
Reed	3,350	385	None	None	0	8%	1	1	0	0	5
Rosewood	5,940	200	Light Rail - At Grade	None	1	71%	0	0	0	3	19
Shipe	19,620	290	None	None	0	25%	1	0	2	0	16
Springwoods	16,410	302	None	None	0	0%	0	0	1	0	5
Walnut Creek	24,247	1,100	None	None	0	0%	0	0	1	0	18
West Austin	Local	142	None	None	1	56%	0	0	1	0	7
Westenfield	152,326	205	Amtrack/Freight	None	2	66%	0	0	0	0	8

Accessibility			Pedestrian Connectivity				Bicycle Connectivity		
Pool Name	Adjacent Roadway Class	Transit Bus	Walkways/ Trails	Crosswalks	Traffic Controls	Overall	Lanes	Trails (Count)	Overall
Balcones	Collector/Local	At pool	Some	Yes	None	Fair	Some	None	Fair
Bartholomew	Minor Arterial	Yes	Some	None	None	Fair	Many	None	Good
Big Stacy	Minor Arterial	Yes	Some	None	None	Fair	Some	None	Fair
Brentwood	Collector/Local	10 minute	Many	Some	None	Good	Many	None	Good
Canyon Vista	Major Arterial	No	Some	None	None	Poor	None	None	Poor
Civitan	Collector/Local	Yes	Many	Yes	None	Good	None	None	Good
Colony Park	Minor Arterial	Yes	Some	None	None	None	Some	None	Fair
Deep Eddy	Minor Arterial	At pool	Some	Some	None	Fair	Some	2	Excellent
Dick Nichols	Minor Arterial	At pool	Many	Yes	None	Good	Some	None	Good
Dittmar	Major Arterial	No	Some	Some	None	Good	Some	None	Fair
Dottie Jordan	Collector/Local	At pool	None	None	None	Poor	None	None	Good
Dove Springs	Minor Arterial	10 minute	Some	None	None	Good	None	None	Good
Garrison	Major Arterial	At pool	Some	Yes	Yes	Fair	None	None	Poor
Gillis	Minor Arterial	At pool	Some	None	None	Fair	None	None	Fair
Givens	Minor Arterial	At pool	None	None	None	Poor	All	None	Excellent
Govalle	Major Arterial	Yes	Some	None	None	Fair	None	1	Good
Kennemer	Minor Arterial	10 minute	Some	Some	None	Fair	Some	None	Good
Little Stacy	Park Road	10 minute	Some	None	None	Fair	None	None	Good
Mabel Davis	Collector/Local	At pool	Some	None	None	Fair	Some	None	Good
Martin	Park Road	10 minute	Some	None	None	Good	Some	1	Excellent
Metz	Local	Yes	Some	None	None	Good	None	1	Good
Montopolis	Major Arterial	At pool	Some	Yes	Yes	Good	None	None	Fair
Murchison	Collector/Local	Yes	Some	Yes	Yes	Good	Some	None	Fair
Northwest	Minor Arterial	10 minute	Minimal	None	None	Fair	None	None	Good
Parque Zaragoza	Minor Arterial	Yes	Minimal	Some	None	Poor	Many	None	Good
Patterson	Major Arterial	Yes	Many	None	None	Fair	None	1	Good
Ramsey	Minor Arterial	Yes	Some	None	None	Good	Some	None	Good
Reed	Collector/Local	10 minute	Minimal	Yes	None	Fair	None	None	Good
Rosewood	Major Arterial	At pool	Many	Some	None	Fair	Some	None	Excellent
Shipe	Minor Arterial	At pool	Some	Some	None	Fair	None	None	Good
Springwoods	Major Arterial	No	Some	None	None	Fair	None	None	Fair
Walnut Creek Park	Major Arterial	Yes	Minimal	None	None	Poor	None	None	Fair
West Austin	Local	Yes	Some	None	None	Fair	None	1	Good
Westenfield	Highway	Yes	Some	Yes	Yes	Good	None	2	Fair

Transit Access

Transit stops near an aquatic site allow for more users to access the facility. High ratings are given based on the distance from the closest transit stop with the highest rating assigned to sites with stops at the pool location.

Pedestrian Connectivity

Pedestrian Connectivity is measured using a series of elements. Walkways/Trails, Crosswalks, and Traffic Controls are measured based on whether they are present from any or all for the potential access points for the site or park. Higher ratings are assigned to sites with infrastructure at more locations. The Overall element looks at the quality, size, and maintenance of the pedestrian facilities in general. For example, if crosswalks lack curb cuts or sidewalks are narrow or only on one side of street, a lower overall rating is assigned.

- Walkways/Trails
- Crosswalks
- Traffic Controls
- Overall

Bicycle Connectivity

Bicycle Connectivity is also measured using a series of elements. Lanes are measured based on whether they are present from any or all of the potential access points for the site or park. Higher ratings are assigned to sites with infrastructure on all sides. The Trails element assigns a rating based on the number of trails leading to the site (highest score to 2 or more). The Overall element looks at the quality, size, and maintenance of the bicycle facilities in general. For example, if bike lanes are intermittent, a lower overall rating is assigned, and a higher score is assigned to overall for low traffic residential streets on one or more sides.

- Lanes
- Trails (Count)
- Overall

7.3.5 Infrastructure (Table 7.8)

This criterion evaluates the utilities and support facilities needed at an aquatic site. The presence and condition of these elements directly impact the requirements for redevelopment.

Electric Service Provider

Electric Service Provider indicates whether the site is served by Austin Energy (higher rating) or another provider (lower rating). The use of other providers increases costs to PARD.

Electric Service (Phases)

The number of phases is important because three phase electric (highest rating) is required by modern pool mechanical systems to operate efficiently. Any site lacking three phase will require upgrades to meet this requirement.

Water (Dist. to 4" Line)

A 4" water line is required for the expansion of any aquatic facility, so the distance (measured in feet) is important because it will be more costly to connect to a more distant line. A shorter distance is assigned a higher rating.

Reclaimed Water (Dist. to Line)

Reclaimed Water service is important for providing irrigation to the site. A shorter distance (in feet) is assigned a higher rating because it will be more costly to connect to a more distant line.

Infrustructure									
Pool Name	Electric Service Provider	Electric Service (Phases)	Water (Dist. to 4" Line in ft.)	Reclaimed Water (Dist. in ft.)	Wastewater (Dist. to 8" Sewer Line in ft.)	Pool Condition	Bathhouse Condition	Storage Conditions	COATN Service Area (Wi-Fi)
Balcones	Austin Energy	3	355'	None	530'	Fair	Fair	Fair	No
Bartholomew	Austin Energy	3	0	0'	0	Excellent	Excellent	Excellent	Yes
Big Stacy	Austin Energy	2	0	None	50'	Fair	Fair	Good	No
Brentwood	Austin Energy	2	0	None	50'	Fair	Poor	Fair	No
Canyon Vista	Other		0	None	67'	Fair	Nonexistent	Good	No
Civitan	Austin Energy	2	0	None	71'	Poor	Poor	Good	No
Colony Park	Austin Energy	3	0	None	686'	NA	NA	NA	No
Deep Eddy	Austin Energy	2	0	None	0'	Poor	Fair	Good	Yes
Dick Nichols	Austin Energy	3	0	None	350'	Good	Fair	Good	No
Dittmar	Austin Energy	3	0	None	300'	Fair	Good	Good	Potential
Dottie Jordan	Austin Energy	2	0	None	0'	Good	Poor	Fair	Potential
Dove Springs	Austin Energy	3	0	1200'	0	Fair	Fair	Fair	Potential
Garrison	Austin Energy	3	0	None	0	Fair	Fair	Fair	Potential
Gillis	Austin Energy	2	0	None	110'	Poor	Nonexistent	Poor	No
Givens	Austin Energy	3	0	None	150'	Poor	Fair	Poor	Potential
Govalle	Austin Energy	2	0	285'	180' to 24"	Nonexistent	Nonexistent	Poor	Yes
Kennemer	Austin Energy	3	0	None	550'	Fair	Fair	Good	No
Little Stacy	Austin Energy	1	0	None	30'	Good	Nonexistent	Poor	No
Mabel Davis	Austin Energy	3	0	None	280'	Poor	Fair	Fair	No
Martin	Austin Energy	3	0	None	0'	Fair	Fair	Good	No
Metz	Austin Energy	2	0	None	0'	Poor	Fair	Fair	Potential
Montopolis	Austin Energy	2	0	1000'	285'	Poor	Fair	Good	Potential
Murchison	Austin Energy	2	0	None	72'	Fair	Fair	Good	No
Northwest	Austin Energy	3	0	None	370'	Poor	Fair	Fair	No
Parque Zaragoza	Austin Energy	1	0	None	330'	Poor	Nonexistent	Good	Potential
Patterson	Austin Energy	3	0	800'	360'	Fair	Nonexistent	Good	No
Ramsey	Austin Energy	2	0	None	80'	Fair	Poor	Fair	No
Reed	Austin Energy	2	0	None	0'	Poor	Fair	Poor	No
Rosewood	Austin Energy	3	0	None	330'	Fair	Poor	Fair	Potential
Shipe	Austin Energy	2	0	2700'	335'	Poor	Nonexistent	Poor	Yes
Springwoods	Austin Energy	2	0	None	75'	Good	Excellent	Fair	No
Walnut Creek	Austin Energy	2	0	None	310'	Fair	Good	Fair	Potential
West Austin	Austin Energy	3	0	2600'	185'	Good	Good	Good	No
Westenfield	Austin Energy	2	0	None	0'	Excellent	Excellent	Fair	No

Legend
Pool Condition - Based on observations of the current condition at the time of the Assessment.
Bathhouse Condition - Based on the number of issues cited in the Assessment (ADA access, walls, roof, electric, structural, doors, plumbing, etc.)
Storage Conditions - Based on where the chemicals are stored and the condition of the enclosure.

Wastewater (Dist. to 8" Sewer Line)

Because an 8" sewer line is desirable for the expansion of any aquatic facility, the distance (measured in feet) is important. A shorter distance is assigned a higher rating.

Pool Condition

The condition of the pool itself is important because more extensive improvements will be required as the condition of a pool declines (lower rating). The values are based on observations of the current condition at the time of the Assessment.

Bathhouse Condition

The renovation requirements for a bathhouse, like the pool, increase as the condition declines (higher score for better condition). These values are based on the number of issues cited in the Assessment (ADA access, walls, roof, electric, structural, doors, plumbing, etc.).

Storage Conditions

This element assigns a rating based on where the chemicals are stored and the condition of the enclosure.

COATN Service Area (Wi-Fi)

This element indicates whether a site has Wi-Fi service provided by COATN or has the potential to have service. No service or potential is assigned the lowest rating.

7.3.6 Environmental (Table 7.9)

This criterion establishes ratings for elements based on the impact to the existing natural environment. These ratings are lower where environmental impact is more significant. Overall, the site is less desirable for development due to higher potential impacts to the natural environment. The environmental impact of development is important because maintaining sustainable natural spaces is part of the mission of PARD.

Trees (Number)

Using the "Tree Inventory 2016" shapefile, this element counts the number of trees that would potentially be impacted by expansion of the pool site. Three separate elements consider different sizes of trees, and in each case, more trees results in a lower rating. The count for Neighborhood Pool is based on the existing site, while the Community/Regional count is based on a 250 foot radius from the pool location.

- 2" to 19" in Diameter
- 19" to 24" in Diameter
- Over 24" in Diameter (Including Heritage)

Grow Zones

According to the "Grow Zones" shapefile metadata, Grow Zones are "areas that are within City of Austin publicly-owned land that have been identified as Grow Zones in a collaboration between Parks and Recreation and Watershed Protection Departments. Contains... acreage, watershed designations and a description of the prescribed maintenance regime that will enable restoration of healthy ecological function."

No aquatic sites contain grow zones; however, if a grow zone is located within 250 feet of the site, a low rating is assigned for this element for the Community/Regional Pool classification.

Aquifer Recharge

According to the "Recharge Zones" shapefile metadata, "Regulatory boundaries of Edwards Aquifer Recharge Zone based on the adoption of the Texas Commission on Environmental Quality (TECQ) Recharge Zone Boundary, defined in September of 2005. The data is loosely defined by surface exposure of the lithology of the Edwards and Georgetown Formations as mapped in 2006. This data has been

Environmental	Trees										
Pool Name	2" to 19"	19" to 24"	24" and Over	Grow Zones	Aquifer Recharge	Pollinator Habitat	Wetland	Rock Outcrop	Spring	Env Sensitivity	Soil Suitability
Balcones	14	2	3	No	Yes	No	No	No	No	Low Sensitivity	Very Limited
Bartholomew	38	10	5	250	No	No	No	No	No	Low Sensitivity	Somewhat Limited
Big Stacy	89	12	11	250	No	No	No	No	250	Medium Sensitivity	Somewhat Limited
Brentwood	42	5	7	No	No	No	No	No	No	Low Sensitivity	Somewhat Limited
Canyon Vista	0	0	0	No	Yes	No	No	No	No	Low Sensitivity	Very Limited
Civitan	1	0	3	No	No	No	No	No	No	Low Sensitivity	Not Limited
Colony Park	N/A	N/A	N/A	No	No	No	No	No	No	Medium Sensitivity	Very Limited
Deep Eddy	0	0	2	No	Yes	No	No	No	No	Medium Sensitivity	Very Limited
Dick Nichols	3	0	0	No	Yes	No	No	No	No	Medium Sensitivity	Very Limited
Dittmar	30	3	5	No	No	No	No	No	No	Medium Sensitivity	Very Limited
Dottie Jordan	106	10	11	250	No	No	No	No	No	Low Sensitivity	Very Limited
Dove Springs	5	0	0	No	No	No	No	No	No	Medium Sensitivity	Very Limited
Garrison	76	8	1	No	No	No	No	No	No	Low Sensitivity	Very-Somewhat Limited
Gillis	29	10	22	250	No	No	No	No	No	Medium Sensitivity	Very Limited
Givens	30	4	4	No	No	No	No	No	No	Low Sensitivity	Somewhat Limited
Govalle	59	17	24	No	No	No	No	No	No	Low Sensitivity	Very Limited
Kennemer	25	3	0	No	No	No	No	No	No	Medium Sensitivity	Somewhat Limited
Little Stacy	99	25	23	250	No	No	No	No	No	Medium Sensitivity	Very-Somewhat Limited
Mabel Davis	40	2	1	No	No	No	No	No	No	Medium Sensitivity	Very-Somewhat Limited
Martin	49	12	4	No	No	No	No	No	No	Low Sensitivity	Very Limited
Metz	37	5	8	No	No	No	No	No	No	Medium Sensitivity	Very Limited
Montopolis	39	1	1	No	No	No	No	No	No	Medium Sensitivity	Very Limited
Murchison	25	4	7	No	Yes	No	No	No	No	Medium Sensitivity	Very Limited
Northwest	14	0	0	No	No	No	No	No	No	Low Sensitivity	Somewhat Limited
Parque Zaragoza	42	7	4	No	No	No	No	No	No	Medium Sensitivity	Somewhat Limited
Patterson	17	6	10	No	No	No	No	No	No	Low Sensitivity	Somewhat Limited
Ramsey	39	4	7	No	No	No	No	No	No	Low Sensitivity	Somewhat Limited
Reed	12	4	3	250	Yes	No	250	250	No	Medium Sensitivity	Very Limited
Rosewood	34	15	22	No	No	No	No	No	No	Medium Sensitivity	Very Limited
Shipe	108	12	10	No	No	250	250	No	No	Low Sensitivity	Somewhat Limited
Springwoods	11	2	2	No	Yes	No	No	No	No	Medium Sensitivity	Very Limited
Walnut Creek Park	21	1	0	No	No	No	No	No	No	Low Sensitivity	Very-Somewhat Limited
West Austin	2	0	1	No	No	No	No	No	No	Medium Sensitivity	Very Limited
Westenfield	99	14	2	No	Yes	No	No	No	No	Medium Sensitivity	Very Limited

produced by the City of Austin for the sole purpose of aiding internal processes and is not warranted for any other use. No warranty is made by the City of Austin regarding its accuracy or completeness."

If all or a portion of a site is located within an aquifer recharge zone, that site is assigned a low score for this element.

Pollinator Habitat

This element utilizes the "Pollinator Habitat" shapefile, which catalogs locations within City of Austin parks. No existing aquatic sites contain a known pollinator habitat, but if one is located within 250 feet of the site, a low rating is assigned for this element for the Community/Regional Pool classification.

Wetlands

This data was prepared by the City of Austin Watershed Protection Department. According to the metadata, "wetland CEFs (Critical Environmental Features) were digitized from construction plans, environmental assessments, and City of Austin staff field observations. Features were digitized into a versioned SDE (Spatial Database Engine) database in ArcMap. Wetland delineation may be determined through a process of negotiation with land development interests and generally reflect the most protective arrangement that could be obtained. Additionally, 'fringe wetlands' were drawn using a standard 2' width on either side of a waterway."

If an aquatic site contains a wetland, it is assigned a low rating for this element. If a wetland is located within 250 feet, it is assigned a low rating for only the Community/Regional Pool classification.

Rock Outcrop

A rock outcrop is an above ground rock formation formed from bedrock. The presence of a rock outcrop makes development more difficult and costly. These formations may also be site features to be preserved.

The presence of a rock outcrop on site leads to a low rating (high rating for no rock outcrop). If one is located within 250 feet of the site, the site will receive a high rating for Neighborhood Pool and a low rating for Community/Regional Pool.

Springs

The metadata for the "Spring" shapefile states that the data was "digitized from construction plans, environmental assessments and City of Austin staff review and field observations." The data refers to a spring, areas of seepage, and some artificial features.

Springs were not located on any of the existing sites, but a low score is assigned to a site with a spring within 250 feet for the Community/Regional classification.

Environmental Sensitivity

While this layer was provided by COA GIS, it was created using two layers prepared by other agencies. According to the metadata for the shapefile, "This layer is the result of the union of two layers, CAPCOG's (Capital Area Council of Governments) Vacant Land Inventory and TxDOT's (Texas Department of Transportation) GISST (Geographic Information System Screening Tool). Any 1km grid with a SUM of greater than 30 was deemed to be highly environmentally sensitive. Any parcel with an improvement value of less than 1/20th of the land value was categorized as vacant. This way environmental sensitivity could be viewed in the context of a given parcel's development status."

Environmental sensitivity is measured Low, Medium, or High with a higher rating assigned to a lower level of sensitivity.

Soil Suitability

This data provided by the City of Austin, but the soil survey was completed by the Natural Resources Conservation Service (NRCS). According to the metadata, "The information was prepared by digitizing maps, by compiling information onto a planimetric correct base and digitizing, or by revising digitized

maps using remotely sensed and other information. This data set consists of georeferenced digital map data and computerized attribute data. The map data are in a soil survey area extent format and include a detailed, field verified inventory of soils and miscellaneous areas that normally occur in a repeatable pattern on the landscape and that can be cartographically shown at the scale mapped…. The soil map units are linked to attributes in the National Soil Information System relational database, which gives the proportionate extent of the component soils and their properties."

The suitability of each soil type was verified using tabular data provided by NRCS. The suitability of soils ranged from "Not Limited" to "Very Limited" with most sites scoring somewhere between. Not Limited received the highest rating and Very Limited received the lowest.

7.3.7 Regulatory (Table 7.10)

This criterion establishes ratings based on Regulatory requirements associated with each element. These elements are important because Regulatory requirements can cause delays, increase costs, or even prevent site development altogether.

Flood Zones

Flood zones represent flood prone areas where development should be avoided. For all floodplain designations (25, 100, or 500), a low rating was assigned if the site was located within the designated area and a high rating was assigned if it was not. If a site was outside of a floodplain but one was located within 250 feet, the site was assigned a high rating for Neighborhood Pool and a low rating for a Community/ Regional Pool.

- 25-Year Floodplain
- 100-Year Floodplain
- 500-Year Floodplain

Zoning Designation

This element assigns ratings based on the zoning classification assigned to an aquatic site. Lower score are assigned to classifications that may be more limiting to potential development.

Sub-Chapter E (Distance from Road)

Sub-Chapter E consists of a series of regulatory requirements (see Chapter 2). This element is concerned with the requirement for a shaded sidewalk to the entrance to the aquatic site. Accordingly, this element assigns a rating based on the distance from the road in feet to the entrance of the aquatic facility. A greater distance results in a lower score.

Erosion Hazard Review Buffer

The metadata for the shapefile states, "This dataset was created to show all areas where an erosion hazard zone analysis will be required for any proposed development. THIS LAYER DOES NOT REPRESENT A CALCULATED EROSION HAZARD ZONE. It simply indicates whether or not an erosion hazard zone analysis is needed per LDC."

If part of an aquatic site contains an Erosion Hazard Review Buffer, the site is assigned a low rating for this elements. If an Erosion Hazard Review Buffer is located within 250 feet of the site, the site is assigned a low rating for only the Community/Regional classification. A high rating is assigned if no buffer is present on or near the site.

Table 7.10: Regulatory

Regulatory	Flood Zones											
Pool Name	25-Year	100-Year	500-Year	Zoning	Sub-Chapter E (Distance from Road in ft.)	Erosion Hazard Zone Review Buffer	Resource Buffers	Watershed Regulation Areas	Water Quality Zones	Endangered Species	Bathhouse	Restroom Distance
Balcones	No	No	No	P	360	No	No	Suburban	No	Yes	Yes	At pool
Bartholomew	150	100	100	P-NP	132	Yes	No	Urban	250 Critical	No	Yes	At pool
Big Stacy	130	115	No	P-NP	183	Within 250	No	Urban	250 Critical	No	Yes	At pool
Brentwood	80	80	No	P-NP	48	Yes	No	Urban	250 Critical	No	Restroom	At pool
Canyon Vista	No	No	No	SF-2-CO	370	No	No	Water Supply Suburban	250 Transition	Yes	No	180
Civitan	No	No	No	SF-3-NP	50	No	No	Suburban	No	No	No	70
Colony Park	No	No	No	P	445	No	CEF Buffer within 250	Suburban	No	No	N/A	N/A
Deep Eddy	No	Yes	Yes	P-H-NP	260	No	No	Water Supply Suburban	No	No	Yes	At pool
Dick Nichols	No	No	250	P	442	No	No	Barton Springs Zone	Transition	No	Yes	At pool
Dittmar	No	No	No	P	225	No	No	Suburban	250 Critical	No	Yes	At pool
Dottie Jordan	Yes	Yes	Yes	P-NP	170	Within 250	No	Urban	Critical	No	Yes	At pool
Dove Springs	No	150	Yes	P-NP	1,310	No	No	Suburban	No	No	Yes	At pool
Garrison	No	No	No	P-NP	584	No	No	Suburban	No	No	Yes	At pool
Gillis	85	70	Yes	P-NP	118	Yes	No	Urban	250 Critical	No	No	110
Givens	230	230	230	P-NP	154	Within 250	No	Urban	250 Critical	No	Yes	At pool
Govalle	200	200	100	P-NP	324	Within 250	No	Urban	250 Critical	No	No	130
Kennemer	No	No	No	SF-3-NP	52	No	No	Urban	No	No	Yes	At pool
Little Stacy	100	100	100	P-NP	240	Within 250	No	Urban	250 Critical	No	No	180
Mabel Davis	No	No	No	P-NP	279	No	No	Suburban	No	No	Yes	At pool
Martin	No	250	Yes	P-NP	108	No	No	Urban	No	No	Yes	At pool
Metz	No	No	120	P-NP	25	No	No	Urban	No	No	Yes	At pool
Montopolis	No	No	No	P-NP	355	No	No	Suburban	No	No	Yes	At pool
Murchison	No	No	No	SF-3	95	No	No	Urban	No	No	Yes	At pool
Northwest	200	160	Yes	P	101	No	No	Urban	250 Critical	No	Yes	At pool
Parque Zaragoza	Yes	Yes	Yes	P-NP	212	Yes	No	Urban	Yes	No	Yes	At pool
Patterson	No	No	No	P-NP	531	No	No	Urban	No	No	No	100
Ramsey	No	No	No	UNZ	59	No	No	Urban	No	No	Yes	At pool
Reed	No	No	80	SF-3-NP	58	Yes	CEF Buffer	Water Supply Suburban	Transition	No	Yes	At pool
Rosewood	250	250	Yes	P-NP	200	No	No	Urban	Critical	No	Yes	At pool
Shipe	250	250	250	P-HD-NCCD-NP	42	Yes	No	Urban	No	No	No	50
Springwoods	No	150	90	I-RR	103	Within 250	No	Suburban	Critical	No	Yes	At pool
Walnut Creek Park	No	No	No	P	376	No	No	Suburban	250 Critical	No	Yes	At pool
West Austin	No	No	No	P-NP	142	No	No	Urban	No	No	No	30
Westenfield	No	No	Yes	P-NP	224	No	No	Urban	No	No	Yes	At pool

Resource Buffers

The metadata from the "Biologic Resource Buffer" shapefile reads, "This dataset represents CEF buffers identified during the development review process since 1995. Prior to 1995, data is either unavailable or lost. CEF buffers were digitized from construction plans, environmental assessments, and City of Austin staff field observations into a versioned SDE database using ArcMap. Actual buffers size for any particular feature may be determined through a process of negotiation with land development interests, and may differ from standard dimensions stated in the Land Development Code."

The data refers to a series of environmental characteristics, many of which are included in the Environmental criterion. This data is included because the buffers are more regulatory in nature, and much of the data is not duplicated in another element. The highest rating was assigned to a site that did not include resource buffers, and the lowest rating was assigned to those that did include a buffer. If a buffer was outside of the pool site but within 250 feet, it was assigned a high rating for Neighborhood Pool and a low rating for a Community/Regional Pool.

Watershed Regulation Areas

The metadata for this shapefile states that "this layer represents the watershed regulation areas inside the extent of the City of Austin's jurisdiction. The Barton Creek Watershed Ordinance introduced stream set back requirements that created five water quality zones with enumerated development restrictions for each one." The Watershed Regulation areas are assigned ratings from high to low in the following order: Urban, Suburban Development, Water Supply Suburban, Water Supply Rural, Barton Spring Zone.

Water Quality Zones

According to the metadata, this shapefile includes "critical water quality zone & water quality transition zone buffers for all creeks within the City of Austin jurisdiction. Guidelines for buffer creation are detailed in chapters 25-8-92 through 25-8-93 of the City of Austin Land Development Code (LDC)."

Sites with critical water quality zones are assigned the lowest score, while sites with transitional zones are assigned a middle score. Sites with no buffer zones are assigned the highest rating. If a critical or transitional zone is located within 250 feet of the aquatic site, the associated lower rating is assigned to the Community/Regional classification.

Endangered Species

According to the U.S. Fish and Wildlife Service, "Critical habitat is a term defined and used in the Act. It is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery."

This element identifies the location of critical habitat of two species of salamander, the Jollyville Plateau Salamander (threatened) and the Austin Blind Salamander (endangered). If the aquatic site includes critical habitat, it is assigned a low rating (no critical habitat yields a high rating).

Bathhouse

This element indicates whether an aquatic site has a bathhouse. The site is assigned the highest rating if a bathhouse is present and a middle rating if a restroom is present but no bathhouse. The lowest rating is assigned if neither is present on the site.

Restrooms (Distance from Pool)

This element measures the distance between an aquatic site the nearest restroom in feet. The highest rating is assigned where the pool has a restroom within the site area. The lowest rating is assigned to an aquatic site over 150 feet from a restroom.

7.3.8 Operations (Table 7.11)

The Operations criterion measures conditions related to the maintenance, access, and operation of the existing aquatic sites. These elements were evaluated by BCI as part of the Aquatic Assessment and were updated by PARD maintenance staff.

Maintenance Staff/Equipment Ease of Access

This element evaluates the ease of equipment access by staff. A low rating is assigned where staff must descend into a pit. A higher rating is assigned if equipment is easier to access.

Simplicity of Equipment

A lower rating is assigned for gravity sand requiring more valves. A filter with a high rate that is easier to operate receives a higher rating.

Equipment Condition/Replacement Cost

This element refers primarily to replacement cost with lower ratings for the gravity sand filters, which typically have cast iron valves and piping. Higher ratings are assigned for high rate sand with newer PVC piping.

Lawn/Landscaped Area

Larger landscaped areas require more maintenance and receive a lower rating.

Employee Safety Measures

Refers primarily to facilities that require staff to enter a pit, which receives a lower rating.

Tables 7.2 through 7.11 present the data for each of the eight criteria, one table for each of the criteria plus tables for two individual elements (Health/Safety issues and Attendance/Pool Capacity). The data for each element is provided by pool site. This data was converted to scores for each element based on the distribution of values shown in the Site Suitability Ratings Key (Table 7.1).

Table 7.11: Operations

Operations					
Pool Name	Equipment ease of access	Simplicity of Equipment	Equipment Condition / Replacement Cost	Lawn/Landscape Area	Employee Safety Measures
Balcones	Poor	Good	Fair	Good	Fair
Bartholomew	Good	Excellent	Excellent	Fair	Fair
Big Stacy	Good	Fair	Poor	Poor	Good
Brentwood	Fair	Good	Fair	Good	Fair
Canyon Vista	Poor	Poor	Poor	Excellent	Poor
Civitan	Poor	Good	Poor	Fair	Good
Colony Park	NA	NA	NA	NA	NA
Deep Eddy	Poor	Poor	Poor	3	Fair
Dick Nichols	Fair	Good	Good	Fair	Good
Dittmar	Poor	Good	Good	Poor	Good
Dottie Jordan	Fair	Good	Fair	Poor	Fair
Dove Springs	Good	Good	Fair	Poor	Good
Garrison	Fair	Poor	Poor	Fair	Fair
Gillis	Poor	Poor	Poor	Good	Poor
Givens	Poor	Poor	Poor	Fair	Poor
Govalle	Good	Good	Poor	Fair	Good

Operations					
Pool Name	Equipment ease of access	Simplicity of Equipment	Equipment Condition / Replacement Cost	Lawn/Landscape Area	Employee Safety Measures
Kennemer	Good	Good	Fair	Fair	Good
Little Stacy	Fair	Good	Fair	Poor	Good
Mabel Davis	Poor	Poor	Poor	Fair	Poor
Martin	Poor	Poor	Poor	Good	Poor
Metz	Fair	Good	Good	Poor	Good
Montopolis	Poor	Poor	Poor	Fair	Poor
Murchison	Good	Good	Good	Fair	Good
Northwest	Poor	Poor	Poor	Fair	Poor
Parque Zaragoza	Fair	Good	Good	Fair	Good
Patterson	Good	Good	Good	Fair	Good
Ramsey	Fair	Good	Good	Fair	Good
Reed	Good	Good	Good	Fair	Good
Rosewood	Poor	Poor	Poor	Good	Poor
Shipe	Fair	Good	Fair	Fair	Good
Springwoods	Good	Good	Good	Poor	Good
Walnut Creek	Fair	Poor	Poor	Fair	Fair
West Austin	Good	Good	Good	Good	Good
Westenfield	Good	Excellent	Excellent	Poor	Excellent

Legend
Equipment ease of access - Low rating for a pit - higher rating for easier access
Simplicity of Equipment - Lower rating for gravity sand requiring more valves - higher rating of easier to operate
Equipment condition/replacement cost - primarily replacement cost with the lower ratings for gravity sand filters, which typically have cast iron valves and piping and higher ratings for high rate sand with newer PVC piping
Landscape area - Larger landscaped areas require more maintenance and receive a lower rating
Employee Safety - Pools where staff must enter a pit receive a lower rating

7.4 Process and Weighting

The scores for each element were generally assigned a rating of 0 to 10 based on the range of possible results. Some elements contained quantitative data, while some elements were qualitative in nature. Quantitative elements were given rating of 0 to 10 based on the range of results, and any number from 0 to 10 was a possible rating for these elements. For example, a population of over 12,000 within a 20-minute walk was given a rating of 10, and as population decreased, the rating declined until the population was below 2,000, a rating of 0.

Qualitative elements typically had fewer than 10 possible scores; however, the range of options were distributed through the rating scale. Some elements had only two options, receiving either 0 or 10 points. In all cases, a higher score was given to a result that was more desirable for redevelopment or improvement of the site. The Site Suitability evaluation for each of the 34 aquatic facility sites is location in Appendix A.

7.4.1 Element Importance and Scoring

The eight criteria each contained between 5 and 12 elements, for a total of 78 elements considered as part of this analysis. Each element was assigned an Importance Factor, measured as a percentage, so that the collective total of the elements within each criterion add up to 100%. The Importance Factors were assigned based on the level of importance that each element should have with regard to decisions to improve or redevelop a site. The Importance Factors can be seen in Table 7.12.

The Consultant and the PARD Technical Team (TT) evaluated each of the elements to determine the Importance Factor that should be assigned. **Public input from the Needs Assessment, this Master Plan, and the SWIM 512 engagement, which took place between the Assessment and the Master Plan, was utilized as part of the determination of these Importance Factors. Every effort was made to ensure that the Importance Factors were assigned to represent how applicable and critical the element would be to future development decisions, because the purpose of this process was to evaluate the sites as objectively as possible.** For example, the location of a site within the floodplain is much more important than the zoning designation, because a floodplain will greatly limit the possibility for development and is much more difficult to change than a zoning designation. (Also, none of the zoning designations at these sites placed significant barriers to development.)

Table 7.12: Importance Factors

Criteria/ Elements	Importance Factor	
	Neighborhood	Community/Regional
Demographics		
20-Minute Walk		
Children	10%	3%
Seniors	5%	2%
Total Population	15%	5%
Median Household Income	5%	3%
Population Growth (5-Year)	5%	3%
Social Needs and Conditions Index	15%	10%
10-Minute Drive		
Children	3%	10%
Seniors	2%	6%
Total Population	6%	15%
Median Household Income	3%	5%
Population Growth (5-Year)	3%	8%
Capacity (based on surface area)	8%	10%
Attendance (5-Year Avg.)	10%	10%
Attendance/Capacity Ratio	10%	10%
Demographics Total (Out of 100)	100%	100%
Site Conditions		
Entrance/Drive	10%	5%
Parking Spaces (Count)	10%	14%
Site Area (Acres)	40%	50%
Grade Constraints	0%	14%
Health, Safety, Welfare Issues	20%	5%
Designated Historical Features (Count)	10%	6%
Historical Structure (Pool House or Pool)	10%	6%
Site Total (Out of 100)	100%	100%
Location		
Heavily Trafficked Roadways (Traffic Counts)	5%	5%
Distance from Road	5%	5%
Railroads	5%	5%
Flight Zones (Noise Level - Decibels)	5%	5%
Competing Elements (Count)		
Other PARD Aquatic Facilities (20 Min. Walk)	20%	8%
Service Area Overlap (20 Min. Walk)	20%	8%
Private Aquatic Facilities (20 Min. Walk)	7%	3%

Criteria / Elements	Importance Factor	
	Neighborhood	Community/Regional
Programs By HOA/Private Orgs. (20 Min. Walk)	3%	2%
Symbiotic Elements (Count)		
Schools/Daycare Providers (5 Minute Walk)	10%	19%
Recreation Centers (5 Minute Walk)	10%	20%
Other Park Amenities (5 Minute Walk)	10%	20%
Location Total (Out of 100)	100%	100%
Accessibility		
Adjacent Roadway Class	5%	5%
Transit Access	15%	15%
Pedestrian Connectivity		
Walkways/Trails	15%	15%
Crosswalks	5%	5%
Traffic Controls	5%	5%
Overall	15%	15%
Bicycle Connectivity		
Lanes	10%	10%
Trails (Count)	15%	15%
Overall	15%	15%
Accessibility Total (Out of 100)	100%	100%
Infrastructure		
Electric Service Provider	10%	10%
Electric Service (Phases)	5%	10%
Water (Dist. to 4" Line in ft.)	10%	20%
Reclaimed Water (Dist. in ft.)	10%	15%
Wastewater (Dist. to 8" Sewer Line in ft.)	5%	15%
Pool Condition	25%	10%
Bathhouse Condition	20%	10%
Storage Conditions	10%	5%
COATN Service Area (Wi-Fi)	5%	5%
Infrastructure Total (Out of 100)	100%	100%
Environmental		
Trees (Number)		
2" to 19" in Diameter	3%	5%
19" to 24" in Diameter	3%	5%
Over 24" in Diameter (Including Heritage)	11%	15%
Grow Zones	13%	10%
Aquifer Recharge	13%	13%
Pollinator Habitat	6%	5%
Wetlands	13%	10%
Rock Outcrop	13%	13%
Springs	13%	13%
Environmental Sensitivity	6%	5%
Soil Suitability	6%	5%
Environmental Total (Out of 100)	100%	100%
Regulatory		
Flood Zones		
25-Year Floodplain	20%	20%
100-Year Floodplain	10%	10%
500-Year Floodplain	5%	5%
Zoning Designation	5%	5%

Criteria/ Elements	Importance Factor	
	Neighborhood	Community/Regional
Sub-Chapter E (Distance from Road in ft.)	5%	5%
Erosion Hazard Review Buffer	9%	10%
Resource Buffers	20%	20%
Watershed Regulation Areas	10%	10%
Water Quality Zones	3%	5%
Endangered Species	3%	5%
Bathhouse	5%	2%
Restrooms (Distance from Pool in ft.)	5%	2%
Regulatory Total (Out of 100)	100%	100%
Operations		
Maintenance Staff/Equipment Ease of Access	20%	20%
Simplicity of Equipment	20%	20%
Equipment Condition/Replacement Cost	30%	30%
Lawn/Landscaped Area	20%	20%
Employee Safety Measures	10%	10%
Operations Total (Out of 100)	100%	100%

The process required that the importance of each element be compared with each of the elements within the criterion. Because the number of elements varies between criteria, the Importance Factor of an element cannot be compared to the Importance Factor of an element of a different criterion. The rating for each element (between 0 and 10) was then multiplied by the Importance Factor to determine an Element Score. The sum of Element Scores within each criteria represents the Criterion Score. Each criterion has a possible score of between 0 and 100.

7.4.2 Criteria Weighting

Once the scores for each criterion were determined, weights were required for the eight criteria. Like the elements they contain, the criteria varied in significance to a future decision process. For example, the Demographics criterion was assigned a higher weight than Operations, because the quantity and social characteristics of the population within the service area of a facility greatly impacts its potential level of use, while improvements to operations can be accomplished through the replacement or relocation of equipment.

7.4.3 Pool Classification Potential

Both the Importance Factors for elements and the weights for the criteria were modified to two improvement scenarios: Neighborhood Pool and Community/Regional Pool. The creation of these two scenarios was necessary because the site requirements vary significantly between a small neighborhood pool and the larger pool types that serve a wider area. For a Neighborhood Pool, the number of children within a 20-minute walk is more important than the number within a 10-minute drive because users of these pools are much more likely to live nearby. Most of the users of a Community or Regional pool will arrive by automobile, placing a greater demand for parking. Additionally, a larger pool requires a larger site to accommodate additional amenities.

7.4.4 Sustainable Aquatic Systems

The Site Suitability Ranking Process is a critical component to the Sustainable Aquatic Systems in Austin. The criteria and elements, along with their corresponding weights and Importance Factors, are designed to promote both sustainability of operations and equity in services for aquatic systems in Austin. Accordingly, the process places the highest weight on the demographics that represent the users of the pools, including those most in need of services. The remaining seven criteria focus on the aquatic site itself, evaluating a multitude of elements that impact the long-term sustainability of a site for aquatic services, which are evaluated both at the neighborhood level (Neighborhood Pool) and multi-neighborhood or regional level (Community/ Regional Pool).

7.5 Analysis

The scores for each criterion by pool can be seen in Table 7.14, Site Suitability Ranking Summary. This table also shows the weights assigned to each criterion under the two scenarios. The Site Suitability Rating Score for each pool site can be seen below the scores by criterion, including separate scores for the Neighborhood and Community/Regional scenarios. The Site Suitability Rating Score represents the summation of the criteria scores multiplied by the criteria weights. Scores could theoretically range from 0 to 100. Actual results ranged from 42 to 81 for Neighborhood Pool and 46 to 71 for Community or Regional Pool.

The process for calculating the Site Suitability Ranking Score is presented in Table 7.13, which uses Balcones as an example. The Criteria Scores are calculated by pool site using the associated elements (sum of Element Scores). The data for the individual Element Scores is located in Appendix A. The Site Suitability Ranking Score represents the sum of the eight (8) Weighted Scores, which as calculated by multiplying the Criteria Scores by the Weight. The process is applied twice, once for Neighborhood Pool and once for Community or Regional Pool. Separate calculations are required because the Weights and Criteria Scores vary depending on the potential pool size.

Table 7.13: Site Suitability Ranking Score

Balcones	Neighborhood Pool					Community or Regional Pool				
Criteria	Weight	multiplied by	Criteria Score	equals	Weighted Score	Weight	multiplied by	Criteria Score	equals	Weighted Score
Demographics	20%	x	40	=	8	20%	x	58	=	12
Site Conditions	20%	x	90	=	18	20%	x	86	=	17
Location	15%	x	73	=	11	15%	x	48	=	7
Accessibility	10%	x	47	=	5	10%	x	45	=	4
Infrastructure	20%	x	53	=	11	10%	x	58	=	6
Environmental	5%	x	78	=	4	10%	x	77	=	8
Regulatory	5%	x	95	=	5	12%	x	92	=	11
Operations	5%	x	52	=	3	3%	x	29	=	1
Sum of 8 Weighted Scores	100%				63	100%				66

Using the scores from this site suitability process, the pool sites were then ranked (against each other) by pool type. Sites that cannot be redeveloped as a larger pool, because they are too small (less than an acre) or are located within the floodplain (25 or 100 year), were not ranked for the larger pool types. These rankings are shown in the bottom three rows of the Site Suitability Ranking Summary (Table 7.13). The rankings for Neighborhood Pools are color coded based on high (green), medium (yellow), and low (red) ranked sites. The ranking can be seen by location in Figure 7.2. The Site Suitability Ranking Summary for Neighborhood Pools only can be seen in Table 7.15.

Table 7.14: Site Suitability Ranking Summary

Aquatic Facility Site			Balcones	Bartholomew	Big Stacy	Brentwood	Canyon Vista	Civitan	Deep Eddy	Dick Nichols	Dittmar	Dottie Jordan	Dove Springs	Garrison	Gillis	Givens	Govalle	Kennemer	Little Stacy	Mabel Davis	Martin	Metz	Montopolis	Murchison	Northwest	Parque Zaragoza	Patterson	Ramsey	Reed	Rosewood	Shipe	Springwoods	Walnut Creek	West Austin	Westenfield
Criteria	Facility Potential	Weight																																	
Demographics	Neighborhood	20%	40	68	68	55	32	49	41	46	52	59	69	61	61	61	50	72	39	56	52	56	68	46	56	68	60	38	22	73	66	34	36	34	51
	Community or Regional	20%	58	74	68	58	34	54	53	49	61	58	58	71	52	63	53	69	36	71	52	54	64	44	59	63	67	43	25	69	68	50	56	31	56
Site Conditions	Neighborhood	20%	90	96	72	69	52	48	74	94	92	84	92	84	44	80	67	76	21	90	85	81	90	94	82	54	62	44	33	73	27	96	92	23	56
	Community or Regional	20%	86	92	11	26	31	24	39	82	28	34	63	66	22	70	23	36	23	79	31	30	45	36	86	23	26	24	28	18	19	35	78	12	27
Location	Neighborhood	15%	73	69	47	67	70	38	56	72	75	74	74	82	55	73	62	62	50	64	67	48	53	67	71	44	61	68	65	59	66	70	78	53	27
	Community or Regional	15%	48	53	40	49	43	30	46	54	54	53	59	67	46	57	43	34	44	39	64	46	46	52	55	52	50	45	42	63	56	45	60	42	22
Accessibility	Neighborhood	10%	47	47	42	56	58	61	70	66	35	31	38	42	37	45	50	40	28	48	51	54	53	58	28	46	58	54	33	62	45	22	28	48	68
	Community or Regional	10%	45	44	41	56	56	59	69	65	35	28	37	42	36	44	50	39	27	45	51	51	53	55	27	46	58	53	30	62	44	22	28	45	68
Infrastructure	Neighborhood	20%	53	100	56	48	37	43	55	61	65	58	62	62	32	49	40	56	44	48	60	52	51	56	47	38	55	48	45	54	36	69	60	66	78
	Community or Regional	10%	58	100	61	57	49	55	66	60	67	66	72	72	46	60	61	57	50	57	69	64	57	61	54	44	65	57	58	64	48	67	58	65	73
Environmental	Neighborhood	5%	78	91	83	91	81	98	77	78	85	80	91	91	78	93	79	93	76	90	89	85	88	72	97	89	84	91	75	77	87	76	94	90	72
	Community or Regional	10%	77	79	55	88	82	97	78	79	83	66	92	88	63	92	73	92	59	89	86	83	88	71	97	88	82	88	42	72	67	77	94	90	70
Regulatory	Neighborhood	5%	95	89	98	88	74	91	76	85	96	60	87	92	81	98	95	95	92	95	94	99	94	95	95	51	90	100	59	90	87	90	95	96	93
	Community or Regional	12%	92	48	52	53	75	92	76	78	91	48	77	92	46	48	45	94	44	94	83	94	94	94	59	47	92	99	52	57	51	62	90	97	92
Operations	Neighborhood	5%	52	79	41	58	36	41	23	62	50	48	54	35	30	26	51	60	50	26	30	56	26	66	26	62	66	62	66	30	56	60	35	70	78
	Community or Regional	3%	52	79	41	58	36	41	23	62	50	48	54	35	30	26	51	60	50	26	30	56	26	66	26	62	66	62	66	30	56	60	35	70	78
SITE SUITABILITY RATING SCORE	Neighborhood	100%	63	81	61	62	50	51	58	69	68	64	71	69	49	64	57	66	42	63	65	62	65	67	61	53	62	54	43	65	52	64	63	50	60
	Community or Regional	100%	66	72	NA	52	NA	NA	58	66	57	NA	64	70	NA	61	47	NA	NA	67	58	56	61	56	63	NA	NA	NA	NA	NA	NA	49	66	NA	NA
RANKING BY POOL CLASSIFICATION[1]	Neighborhood		14	1	21	17	30	29	24	3	5	11	2	3	32	11	25	7	34	14	8	17	8	6	21	27	17	26	33	8	28	11	14	30	23
	Community		4	1		17			12	5	14		7	2		9	19			3	13	14	10	16	7							18	5		
	Regional		4	1						5				2		8				3					7								5		

1. Facilities which are of appropriate minimum site size and are not in the 25-year or 100-year floodplain. Ranked with 1 as the top or highest score. Community Pools must have a minimum size of 1.1 acres (2 acres minimum preferred) and Regional Pools must have minimum of 4.0 acres (5 acres minimum preferred).

NA - Not applicable due to location in a 25 or 100 year flood plain or site size is less than 1 acre. Therefore, the pool cannot be expanded.

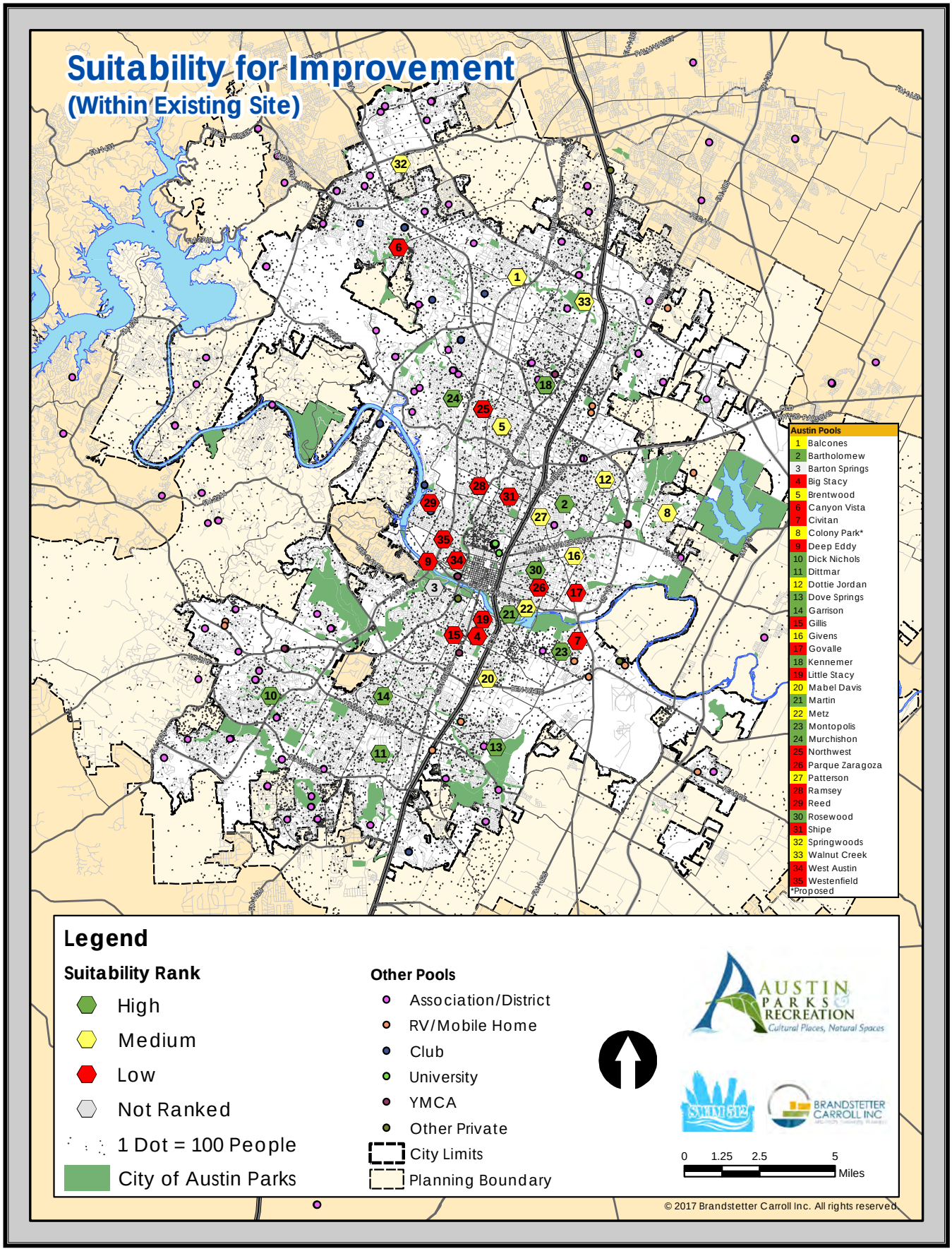
Color Coding Legend Top Ranked Neighborhood Pool Sites | Middle Ranked Neighborhood Pool Sites | Bottom Ranked Neighborhood Pool Sites

Table 7.15: Site Suitability Ranking Summary for Neighborhood Pools This page intentionally blank.

Aquatic Facility Site		Balcones	Bartholomew	Big Stacy	Brentwood	Canyon Vista	Civitan	Deep Eddy	Dick Nichols	Dittmar	Dottie Jordan	Dove Springs	Garrison	Gillis	Givens	Govalle	Kennemer	Little Stacy	Mabel Davis	Martin	Metz	Montopolis	Murchison	Northwest	Parque Zaragoza	Patterson	Ramsey	Reed	Rosewood	Shipe	Springwoods	Walnut Creek	West Austin	Westenfield
Criteria	Weight																																	
Demographics	20%	40	68	68	55	32	49	41	46	52	59	69	61	61	61	50	72	39	56	52	56	68	46	56	68	60	38	22	73	66	34	36	34	51
Site Conditions	20%	90	96	72	69	52	48	74	94	92	84	92	84	44	80	67	76	21	90	85	81	90	94	82	54	62	44	33	73	27	96	92	23	56
Location	15%	73	69	47	67	70	38	56	72	75	74	74	82	55	73	62	62	50	64	67	48	53	67	71	44	61	68	65	59	66	70	78	53	27
Accessibility	10%	47	47	42	56	58	61	70	66	35	31	38	42	37	45	50	40	28	48	51	54	53	58	28	46	58	54	33	62	45	22	28	48	68
Infrastructure	20%	53	100	56	48	37	43	55	61	65	58	62	62	32	49	40	56	44	48	60	52	51	56	47	38	55	48	45	54	36	69	60	66	78
Environmental	5%	78	91	83	91	81	98	77	78	85	80	91	91	78	93	79	93	76	90	89	85	88	72	97	89	84	91	75	77	87	76	94	90	72
Regulatory	5%	95	89	98	88	74	91	76	85	96	60	87	92	81	98	95	95	92	95	94	99	94	95	95	51	90	100	59	90	87	90	95	96	93
Operations	5%	52	79	41	58	36	41	23	62	50	48	54	35	30	26	51	60	50	26	30	56	26	66	26	62	66	62	66	30	56	60	35	70	78
SITE SUITABILITY RATING SCORE	100%	63	81	61	62	50	51	58	69	68	64	71	69	49	64	57	66	42	63	65	62	65	67	61	53	62	54	43	65	52	64	63	50	60
RANKING		14	1	21	17	30	29	24	3	5	11	2	3	32	11	25	7	34	14	8	17	8	6	21	27	17	26	33	8	28	11	14	30	23

Top Ranked Neighborhood Pool Sites Middle Ranked Neighborhood Pool Sites Bottom Ranked Neighborhood Pool Sites

Figure 7.2: Suitability for Improvement (Neighborhood Pool or Within Existing Site)



This process was also applied to the potential Colony Park site, and the results can be seen in Table 7.16. Much of the infrastructure has not yet been built for the planned aquatic facility at this location. Accordingly, some elements including the entire operations category were omitted from the analysis. This site's score will likely increase as infrastructure is added at the park, since infrastructure represented its lowest scoring criteria. The site received high scores for several other criteria.

Table 7.16: Colony Site

Aquatic Facility Site			Colony Park[1]
Criteria	Facility Potential	Weight	
Demographics	Neighborhood	20%	57
Site Conditions	Neighborhood	20%	88
Location	Neighborhood	15%	80
Accessibility	Neighborhood	10%	45
Infrastructure	Neighborhood	20%	25
Environmental	Neighborhood	5%	81
Regulatory	Neighborhood	5%	84
Operations	Neighborhood	5%	N/A
SITE SUITABILITY RATING SCORE	Neighborhood	100%	62
RANKING	Neighborhood		17

The aquatic sites were also ranked for Community Pools (see Table 7.17) and Regional Pools (see Table 7.18). Community Pool rankings were limited to sites 1.1 acres (the size of the smallest existing Municipal Pool—Springwoods) or larger. Regional Pool rankings were limited to sites of 4 acres or more. The top ten aquatic sites for Community Pools and top five for Regional Pools are listed below.

Table 7.17: Community Pool Ranking

Aquatic Facility Site		Balcones	Bartholomew	Brentwood	Deep Eddy	Dick Nichols	Dittmar	Dove Springs	Garrison	Givens	Govalle	Mabel Davis	Martin	Metz	Montopolis	Murchison	Northwest	Springwoods	Walnut Creek
Criteria	Weight																		
Demographics	20%	58	74	58	53	49	61	58	71	63	53	71	52	54	64	44	59	50	56
Site Conditions	20%	86	92	26	39	82	28	63	66	70	23	79	31	30	45	36	86	35	78
Location	15%	48	53	49	46	54	54	59	67	57	43	39	64	46	46	52	55	45	60
Accessibility	10%	45	44	56	69	65	35	37	42	44	50	45	51	51	53	55	27	22	28
Infrastructure	10%	58	100	57	66	60	67	72	72	60	61	57	69	64	57	61	54	67	58
Environmental	10%	77	79	88	78	79	83	92	88	92	73	89	86	83	88	71	97	77	94

Aquatic Facility Site		Balcones	Bartholomew	Brentwood	Deep Eddy	Dick Nichols	Dittmar	Dove Springs	Garrison	Givens	Govalle	Mabel Davis	Martin	Metz	Montopolis	Murchison	Northwest	Springwoods	Walnut Creek
Criteria	Weight																		
Regulatory	12%	92	48	53	76	78	91	77	92	48	45	94	83	94	94	94	59	62	90
Operations	3%	52	79	58	23	62	50	54	35	26	51	26	30	56	26	66	26	60	35
SITE SUITABILITY RATING SCORE	**100%**	**66**	**72**	**52**	**58**	**66**	**57**	**64**	**70**	**61**	**47**	**67**	**58**	**56**	**61**	**56**	**63**	**49**	**66**
RANKING		**4**	**1**	**17**	**12**	**5**	**14**	**7**	**2**	**9**	**19**	**3**	**13**	**14**	**10**	**16**	**7**	**18**	**5**

1. Facilities which are of appropriate minimum site size and are not in the 25-year or 100-year floodplain. Ranked with 1 as the top or highest score. Community Pools must have a minimum size of 1.1 acres (2 acres minimum preferred).

Table 7.18: Regional Pools Ranking

Aquatic Facility Site		Balcones	Bartholomew	Dick Nichols	Garrison	Givens	Mabel Davis	Northwest	Walnut Creek
Criteria	Weight								
Demographics	20%	58	74	49	71	63	71	59	56
Site Conditions	20%	86	92	82	66	70	79	86	78
Location	15%	48	53	54	67	57	39	55	60
Accessibility	10%	45	44	65	42	44	45	27	28
Infrastructure	10%	58	100	60	72	60	57	54	58
Environmental	10%	77	79	79	88	92	89	97	94
Regulatory	12%	92	48	78	92	48	94	59	90
Operations	3%	52	79	62	35	26	26	26	35
SITE SUITABILITY RATING SCORE	**100%**	**66**	**72**	**66**	**70**	**61**	**67**	**63**	**66**
RANKING		**4**	**1**	**5**	**2**	**8**	**3**	**7**	**5**

1. Facilities which are of appropriate minimum site size and are not in the 25-year or 100-year floodplain. Ranked with 1 as the top or highest score. Regional Pools must have minimum of 4.0 acres (5 acres minimum preferred).

Community Pool

- Bartholomew
- Garrison
- Mabel Davis
- Balcones
- Walnut Creek (tied)
- Dick Nichols (tied)

- Northwest (tied)
- Dove Springs (tied)
- Givens
- Montopolis

Regional Pool

- Bartholomew
- Garrison
- Mabel Davis
- Balcones
- Walnut Creek (tied)
- Dick Nichols (tied)

7.6 Implementation

The Site Suitability Ranking for a pool is intended to be used as a tool in the decision-making process once conditions at a facility deteriorate to the point where continued operation in its current state is no longer sustainable. The Site Suitability Ranking will be an essential tool once the facility reaches the Faulty Operation state or a 50% deviation from the baseline (see Chapter 6 for details on Aquatic Facility Sustainability). These tools must be used in conjunction with community engagement in order to determine the future of any aquatic facility in Austin.

Once a threshold is reached, this process provides an important resource to reference and employ when determining the future of aquatic opportunities in Austin. The results of this process supply a detailed data-based evaluation of an aquatic site, which provide the City of Austin and the Parks and Recreation Department with an objective measurement of both the performance and sustainability of an existing or potential aquatic facility.

8

RECOMMENDATIONS AND ACTION PLAN

This chapter presents the recommendations that follow from the analyses and public engagement conducted throughout the Aquatic Assessment, SWIM 512, and Master Plan development process. This chapter provides details of recommended changes to facilities, operations, policies, partnerships, and programs in Austin. It is important to reiterate that this master is a living document that needs to be reviewed and revised (every 5 years) to respond to changing demographics and urban growth patterns of the City of Austin. Additionally, the implementation of these recommendations should include follow-up public input processes to ensure that any proposed changes meet the aquatic needs of the local community.

8.1 A Sustainable and Equitable Aquatic System

Chapter 6 outlined the components of a sustainable aquatic system within five topical areas: Facilities; Budget/Cost; Staffing; Maintenance/Operations; and Programming. Chapter 6 then provided the components of measuring a sustainable system within a framework of a Sustainability Model with recommendations for baseline establishment in the areas of water use, attendance, annual maintenance repairs, and demographics. Actual cost per patron was recommended as a future measurement. It is recommended that this procedure be implemented immediately to work in conjunction with the Site Suitability Ranking to begin the process of determining the short- and long-term disposition of each aquatic facility.

Chapter 5 outlined the characteristics of the various classifications of proposed aquatic facilities, including Neighborhood Pools, Community Pools, Regional Aquatic Centers, an Indoor Community Pool, and a Premier Indoor Aquatic Center. Section 8.2 describes how these pool classifications would be applied to the long-term vision of a more sustainable aquatic system that also addresses equity in the provision of aquatic facilities and services.

8.2 Aquatic Facilities and Distribution

8.2.1 City-Wide System Description

Based upon the need to develop a more sustainable and equitable system and the desires of the public as engaged throughout the process, Figure 8.1 demonstrates potential future aquatic service areas. This map, Aquatic Service Areas – 20 Year Plan, identifies the location of facilities for a system of aquatic facilities of varying sizes and market areas. According to the proposed aquatic system, many existing pools would be upgraded from their current classification of Neighborhood or Municipal Pools to Community Pools or Regional Aquatic Centers. An upgrade to these new classifications does not necessarily indicate that the

physical size of the pool will be expanded. In many cases, the upgrades include additional amenities, such as waterslides, zero depth entry, or interactive play features, but no increase in the size of the pool. Instead, the existing size of the pool was a positive element (see Chapter 7) for determining sites to upgrade because expansion of the pool would not be required.

Regional Aquatic Centers

Pools would be upgraded to Regional Aquatic Centers at the following sites:

- Balcones
- Bartholomew (completed in 2014)
- Garrison
- Northwest
- Deep Eddy (serves as a unique regional facility)

Community Pools

Pools would be upgraded (or developed) to Community Pools at the following sites:

- Dick Nichols
- Dittmar
- Dove Springs
- Givens
- Montopolis
- Springwoods
- Walnut Creek
- Northeast (new) - To serve an underserved area (east of I-35 and north of Highway 290)
- Northwest (new) - To serve as a long-term replacement of Canyon Vista. Canyon Vista Pool is leased from Round Rock ISD and subject to removal as part of potential school expansion. In addition, the market area warrants a larger pool and more features than Canyon Vista can offer on its limited footprint
- Southeast (new) - To serve this growing population, including some areas with high social needs
- Southwest (new) - To serve this growing area of Austin. There are several HOA pools in the area, but the continued growth and crowding at Dick Nichols indicates a strong need.

Neighborhood Pools

The gaps between Regional and Community facilities will be filled by the existing Neighborhood Pools. The Site Suitability Ranking Process and Sustainability Processes should be utilized to determine whether a pool should be renovated/replaced, consolidated with another pool, or decommissioned. Ideally, a proactive approach will be applied in which a Neighborhood Pool will not be decommissioned until an adjacent facility within the same market area is developed or upgraded, avoiding further gaps in services.

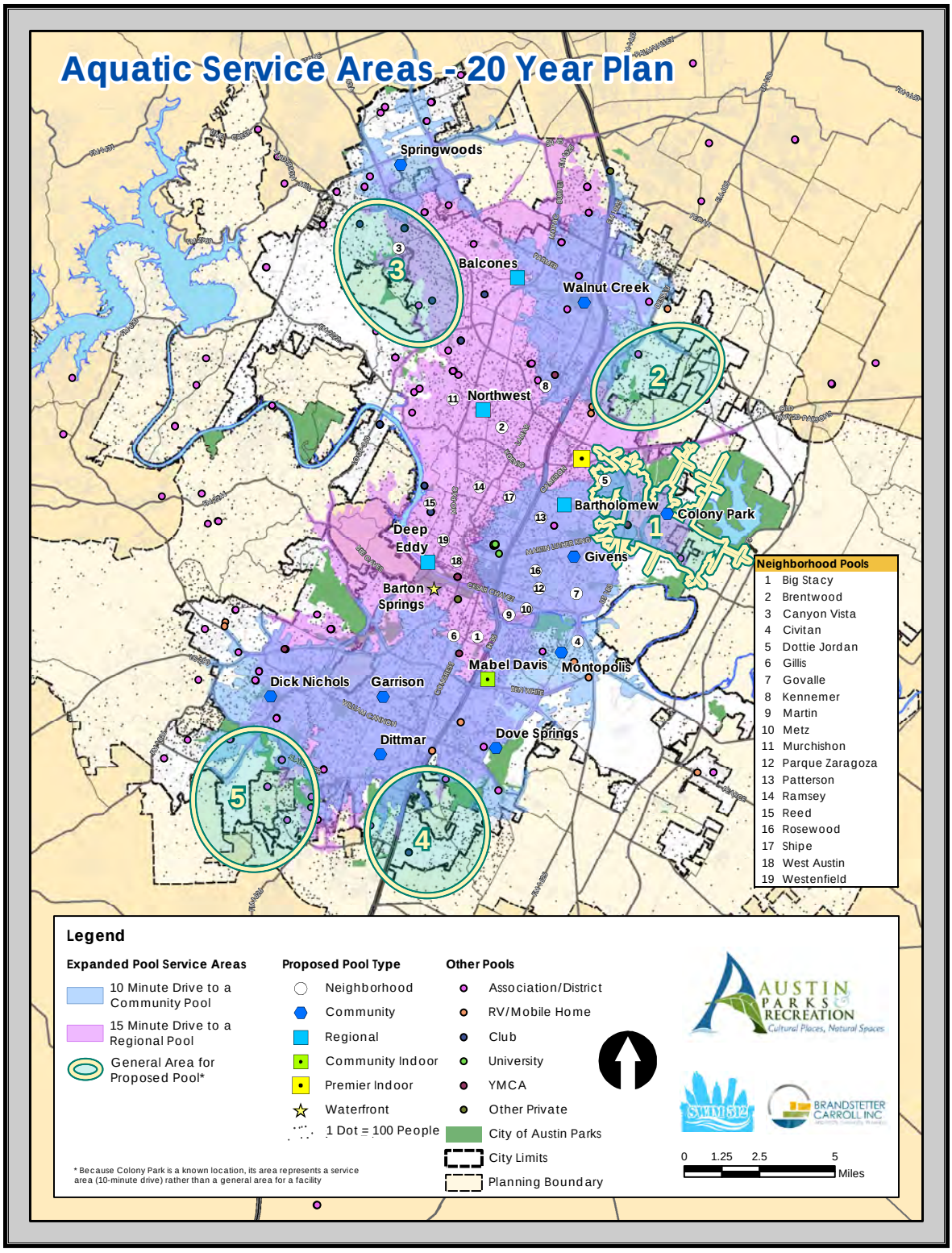
When a Neighborhood Pool is determined to be unsustainable and is scheduled for decommissioning, PARD should work closely with the impacted neighborhoods to determine an alternate use. Pools must not be abandoned in place as they will become an eyesore, detracting from the neighborhood and the park (also a safety hazard). The pool must be demolished and an alternative use developed in its place, based upon the park and community needs. The pool locations could become athletic fields or courts, picnic facilities, playgrounds, skate parks, or other uses.

8.2.2 New Indoor Facilities

The figure (8.1) also indicates potential locations of two indoor facilities. The Premier Indoor Facility would be located in the general area within a triangle east of I-35, south of Highway 183, and north of Highway 290, providing would have good access from several highways.

The second proposed indoor facility would be a Community Indoor facility to serve the southern portion of the City. Potential locations are Garrison or Mabel Davis. Mabel Davis has surfaced as a favorable site if the previous use of portions of the site as a landfill does not restrict further development. This issue should be further researched. Partnerships with private organizations and public agencies (including Austin Independent School District and other educational institutions) should be considered as part of the development of both of these indoor facilities.

Figure 8.1: Aquatic Service Areas - 20 Year Plan



8.2.3 Existing Facility Recommendations

Table 8.1, Aquatic Facility Recommendations, provides a summary of the facility recommendations in this plan. More specific detail can be found in Appendix E (Individual Pool Recommendations and Costs). The City should also refer to the Aquatic Facilities Needs Assessment Appendix I for more detail on specific improvements that need to be made to each facility in the interim. Table 8.1 identifies the following:

- Proposed facility category
- Recommendations for the pool, buildings, and site
- Recommended timeframe for the improvements (0-2 years, 3-5 years, 6-10 years, and 11-20 years)
- Budget costs for the pool, deck, pool house, pump building, and site
- Construction Cost Subtotal
- Total Project Cost with Owner Costs (including engineering and design, 2% for art, permitting, CIP inspections, PARD Project Management, etc.)

8.2.4 Capital Cost Estimates

Table 8.1 identifies a total project cost of just over $57 million for the new facilities recommended to fill service area gaps and for the new centralized aquatic maintenance facility. The table also identifies a total of all project costs at just over $193 million, if the City were to improve and upgrade all of its current facilities and add the new facilities.

Realistically, the City should consolidate some of its older and lower ranking pools (based on the Site Suitability Ranking Process), which are close to other facilities, within a floodplain, or rank lower for other reasons. The long-term reduction in the number of Neighborhood Pools by ten pools would reduce the total cost to approximately $152 million.

Several major contributing factors lead to the high capital costs, including:

- The age of facilities, leading to the need for total replacement of the pool, pool house, filtration system, and pool deck for many pools
- Requirements for Silver LEED Certification, which increase construction and initial development costs, but should lead to energy savings and reduced operational costs in the long run
- Upgrades to the utility connections to include minimum 4" water lines, 8" sanitary sewers, and fire hydrants
- Stormwater detention and quality control measures
- Requirements for restrooms and showers at all pools (currently some facilities have no restrooms at the pool)
- The need to provide larger pool houses with family restrooms/gender neutral restrooms, improved office space, and concessions in larger facilities at every facility
- Sub-Chapter E requirements for shaded walks and bicycle access from the right-of-way to the pool
- Other regulatory and project management costs

8.3 Aquatic Programming Recommendations

8.3.1 Opportunities

- With the SWIM512 process and the vision of the City to renovate and add new aquatic facilities, the input about the need for more "teachable, swimmable" water in the new or renovated facilities will be valuable.
- The success experienced with collaborative efforts such as SwimATX could serve to encourage new and creative cooperative efforts.

Table 8.1: Capital Improvement Schedule (See Appendix E for More Detail)

		Recommendations			Timeframe				Costs						
Pool Name	**Proposed Facility Category**	**Pool**	**Buildings**	**Site**	**0-2 Years**	**3-5 Years**	**6-10 Years**	**11-20 Years**	**Deck**	**Pool with Filtration**	**Pool House**	**Pump House**	**Site**	**Construction Cost Total**	**Total with Owner Costs (add 30%)[1]**
Balcones	Regional	Replace completely as 25-yard Regional Pool	Major renovation	Expand parking; new driveway; stormwater		x			$210,000	$1,800,000	$600,000	$250,000	$2,850,000	$5,710,000	$7,423,000
Bartholomew	Regional	New--No changes; opened in 2014													
Big Stacy	Neighborhood	Upgrade; no change in size; new deck	Renovate historic bathhouse; expand	Stormwater; ADA parking		x			$40,500	$800,000	$250,000	$10,000	$1,400,000	$2,500,500	$3,250,650
Brentwood	Neighborhood	Replace completely; zero depth for wading pool	Replace pergola; addition for party/training room, office and family restroom	Accessible parking; new utilities; stormwater		x			$70,500	$820,000	$525,000	$5,000	$1,390,000	$2,810,500	$3,653,650
Canyon Vista	Neighborhood	Long-term relocate as a Community Pool	Add bathhouse in interim	Accessible parking and access				x	$81,000	$656,000	$450,000	$0	$1,280,000	$2,467,000	$3,207,100
Civitan	Neighborhood	Replace both pools if warranted; consolidate and decommission with improvements at Montopolis	Add bathhouse	Accessible parking; new utilities; stormwater		x			$70,500	$820,000	$450,000	$0	$1,510,000	$2,850,500	$3,705,650
Dick Nichols	Community	Minor changes; add features to pool	Add family restrooms and party/training room	New utilities; stormwater			x		$75,000	$1,980,000	$250,000	$25,000	$1,390,000	$3,720,000	$4,836,000
Dittmar	Community	Replace completely; backwash holding tank in interim	Refurbish existing bathhouse; addition for family restroom, party/training room and concessions	Utilities; stormwater			x		$135,000	$1,400,000	$400,000	$25,000	$1,820,000	$3,780,000	$4,914,000
Dottie Jordan	Neighborhood	Replace completely if possible (within floodplain)	Replace bathhouse	New utilities; stormwater				x	$70,500	$820,000	$450,000	$50,000	$1,700,000	$3,090,500	$4,017,650
Dove Springs	Community	Minor addition to pool; add features	Add family restrooms and party/training room	New utilities; stormwater			x		$120,000	$2,120,000	$350,000	$25,000	$1,790,000	$4,405,000	$5,726,500
Garrison	Regional	Renovate/expand pool house; replace pool; replace wading pool with family activity pool	Major renovation; expansion for family restroom; office	Expand parking; new utilities; driveway; stormwater	x				$210,000	$2,800,000	$800,000	$250,000	$3,480,000	$7,540,000	$9,802,000
Gillis	Neighborhood	Critical condition; replace completely if warranted	Add a bathhouse	ADA parking and accessible path; new utilities; stormwater		x			$70,500	$820,000	$450,000	$0	$1,410,000	$2,750,500	$3,575,650
Givens	Community	Critical condition; replace completely	Major renovation and expansion	Utilities; stormwater	x				$135,000	$1,400,000	$550,000	$5,000	$2,340,000	$4,430,000	$5,759,000
Govalle	Neighborhood	Currently being renovated--Not included in this analysis			x										
Kennemer	Neighborhood	Completely replace; backwash holding tank in interim	Renovate bathhouse; add family restroom; first aid room	ADA parking and accessible path; new utilities; stormwater			x		$70,500	$820,000	$250,000	$0	$1,250,000	$2,390,500	$3,107,650
Little Stacy	Wading pool	Add zero depth entry; candidate for decommissioning	Add restrooms	ADA parking and accessible path; new utilities; stormwater		x			$14,400	$300,000	$450,000	$0	$1,570,000	$2,334,400	$3,034,720
Mabel Davis	Indoor-Regional	New Community Indoor Facility; backwash holding tank in interim	New Natatorium	Expand parking; driveway; lighting		x			$150,000	$1,230,000	$0	$0	$2,490,000	$7,800,000	$10,140,000
Martin	Neighborhood	Completely replace	Major renovation with addition	Restripe parking; accessible route; stormwater; parking lot lighting		x			$70,500	$820,000	$225,000	$0	$1,950,000	$3,065,500	$3,985,150
Metz	Neighborhood	Long term replace if warranted	Major renovation and expansion	Utility connections; stormwater; parking lot lights			x		$70,500	$820,000	$125,000	$0	$1,710,000	$2,725,500	$3,543,150
Montopolis	Community	Completely replace	renovate bathhouse; Add family restrooms, party/training room, and office	Expand parking; new utilities; stormwater	x				$135,000	$1,400,000	$350,000	$0	$2,160,000	$4,045,000	$5,258,500
Murchison	Neighborhood	Completely replace	Major renovation; expansion for family restroom	New utilities; stormwater			x		$70,500	$820,000	$275,000	$20,000	$1,230,000	$2,415,500	$3,140,150
Northwest	Regional	Large pool same size; replace wading pool with family activity pool	Major building renovation--No larger footprint	Stormwater detention; new utilities	x				$210,000	$2,800,000	$800,000	$250,000	$2,620,000	$6,680,000	$8,684,000
Parque Zaragoza	Neighborhood	Difficult to upgrade due to 25-year floodplain; replace if warranted; good candidate for decommissioning	Current building condemned; new bathhouse if to continue	ADA parking; parking lot light; new utilities			x		$70,500	$820,000	$450,000	$0	$1,850,000	$3,190,500	$4,147,650

		Recommendations			Timeframe				Costs						
Pool Name	**Proposed Facility Category**	**Pool**	**Buildings**	**Site**	**0-2 Years**	**3-5 Years**	**6-10 Years**	**11-20 Years**	**Deck**	**Pool with Filtration**	**Pool House**	**Pump House**	**Site**	**Construction Cost Total**	**Total with Owner Costs (add 30%)[1]**
Patterson	Neighborhood	New wading pool; replace main pool	New bathhouse; keep pumphouse with mural if possible	Utilities; stormwater; parking lot lighting				x	$70,500	$820,000	$450,000	$10,000	$2,210,000	$3,560,500	$4,628,650
Ramsey	Neighborhood	Maintain in operation until unsustainable	Replace bathhouse and pump house	ADA parking; stormwater; parking lot lighting				x	$70,500	$820,000	$450,000	$0	$1,850,000	$3,190,500	$4,147,650
Reed	Neighborhood	Limited room for expansion/upgrade; replace pool if warranted	New bathhouse; repurpose existing building	ADA parking and access; stormwater; parking lot light				x	$70,500	$820,000	$450,000	$10,000	$2,390,000	$3,740,500	$4,862,650
Rosewood	Neighborhood	Pool recently renovated	New restroom being installed	Stormwater detention				x	$57,000	$1,734,000	$521,000	$0	$1,750,000	$4,062,000	$5,280,600
Shipe	Neighborhood	Currently being renovated--Not included in this analysis (See Govalle)			x										
Springwoods	Community	Minor changes to pool, repair deck	Renovate bathhouse; add family restrooms	Expand parking; stormwater				x	$75,000	$880,000	$300,000	$10,000	$1,550,000	$2,815,000	$3,659,500
Walnut Creek	Community	Completely replace/expand	Renovate and expand	New utilities; stormwater		x			$135,000	$1,400,000	$350,000	$0	$2,300,000	$4,185,000	$5,440,500
West Austin	Neighborhood	Remain as a small round pool until unsustainable--No room for expansion	Add shade; storage; family restroom	ADA parking and access; stormwater; parking lot light				x	$40,000	$300,000	$450,000	$0	$1,390,000	$2,180,000	$2,834,000
Westenfield	Neighborhood	Opened in 2014													
NEW SITES															**Budget Figures**
Colony Park	To Be Determined	New				x									$5,000,000
Northwest (to replace Canyon Vista)	Community	New					x								$5,000,000
Southeast	Community	New					x								$5,000,000
Southwest	Community	New					x								$5,000,000
Premier Indoor	Premier Indoor	New				x									$35,000,000
Central Aquatic Maintenance Facility	Maintenance					x								$2,000,000	$2,600,000
													Subtotal - New Faciliteis		$57,600,000
													Total Costs - All Facilities		**$193,400,000**

1. Total with Owner Costs include design and engineering, 2% for Art, Permitting, Contract Management, CIP Inspections, PARD Project Management, etc.
2. All costs are in 2017 dollars.

- Should the City pursue the concept of an Indoor Aquatic Center, attendance in year-round training, lifeguard and swim instruction will increase.
- Should the overall number of aquatic locations decrease, the emphasis on programming could be less about quantities to cover programming needs at so many locations, to offering quality programs at fewer facilities. Staffing these programs would be more easily accomplished.
- Drowning statistics for minority children are growing in the United States. Collaborations with organizations like Colin's Hope, coupled with efforts from Austin Aquatics and Austin Fire Department and Austin-Travis County EMS, not only emphasize the need for Learn to Swim programs but also elevate public awareness of this tragic statistic and create a political environment for support of public pools and instruction. Model programs in Arizona and throughout the Southwest have proven successful and have received recognition nationwide.

8.3.2 Recommendations

- Utilize videos for parents to determine skill level for correct class placement for swim lessons
- Work with houses of worship, medical offices, and social services agencies to emphasize the need for drowning prevention programs and swim lessons
  - Provide promotional materials to these non-traditional partners to get more children enrolled
- Continue to offer evening lessons and consider offering weekend lessons to accommodate the needs of working parents who cannot get their kids to weekday swim lessons
- Automate pool rentals to reduce staff time related to these group uses
- Provide more "teachable" and "swimmable" water in any new facilities, including heating for early season lessons and active adult early morning programs
- Create new programs targeted to Active Adults and Seniors, such as Senior Water Aerobics, Post Mastectomy Aqua Classes, Kayaking, Paddleboarding, and balance and strength screenings programs
- Build on collaborative efforts, such as SwimATX, to provide more training and employment opportunities, particularly through expanded partnerships with local school districts
- Collaborate with other drowning prevention advocates to provide swim lessons and water safety opportunities for underserved families
  - Place the focus on drowning prevention and safety as a necessary lifetime skill
- Offer private lesson opportunities to retain talented instructors and meed customer needs

8.4 Operations, Use Agreements, and Partnerships

8.4.1 Opportunities

The PARD Aquatic Division could provide U.S. Coast Guard Approved Life Vests, which could be sponsored by local hospitals, doctors, and fraternal orders, such as the Elks, etc. They could be printed with logos as part of the sponsorship. Pools that provide these free Life Vests have seen a large decrease in the number of assists and rescues and an increase in participation by younger, inexperienced swimmers.

According to Recreation Management's 2017 State of the Industry Report, the number one planned program addition in public aquatic facilities is Special Needs Aquatic Programs, which would be offered through the Centralized Program Division. These programs are continuing to grow throughout the US. They have great potential for funding as well as partnerships with local organizations that support special needs programming. These programs also represent great grant potential from both government sources and non-profit partnerships.

The Austin-American Statesman Swim Safe program for Austin Kids is a great example of a partnership that has increased the accessibility and equitability of swim instruction for children in need. These types of partnerships could add more program offerings without increasing the operating budget.

A world class indoor aquatic facility would certainly make Austin a destination for excellence in aquatics. It could attract local, state, national, and international teams and have a positive impact on the economic life of Austin. While considering this type of facility, the most popular amenities that will serve Austin's changing demographics should be considered. The latest programs, including competitive, diving, water polo, synchronized swimming, wall climbing, log rolling, kayaking, and surfing, would attract customers.

With partnerships in mind, the City of Austin could work with private businesses to develop an aquatic center by providing tax incentives, land leases, and other public/private partnerships with organizations such as USA Swimming. With the industries currently thriving in Austin, naming and sponsorships of such a property could be attainable.

8.4.2 Recommendations

- Make Free Life Vests (PFDs) available at all locations for children who cannot pass the swim test
- Recruit sponsors for Free Life Jackets (PFDs) at all aquatic facilities in the City
- Increase availability of Learn to Swim programs for children and adults with unique needs through partnerships and sponsors
- Utilize Wi-Fi and internet capabilities for scheduling, certification tracking, communications, and cash management to improve efficiency of aquatic operations
- Consider collaboration with private business to develop aquatic centers by providing tax incentives, land leases, and other public/private partnerships
- Begin to search out potential partners and sponsors for the development of an indoor aquatic facility
- Develop partnerships with club teams, high school teams and other groups, including competitive divers and synchronized swimmers, who might rent pool space at a premier indoor facility
- Seek partnerships with local school districts (and other educational institutions) as part of the development of any indoor aquatic facilities
- Explore opportunities for internal partnerships with other PARD division to offer needed programs such as Special Needs Aquatic Programs

8.5 Maintenance Recommendations

8.5.1 Opportunities

Active participation in the Aquatic Master Plan efforts will assist the residents and City officials to mutually understand the true needs of Aquatic Maintenance and the scope of their work.

As the City of Austin makes decisions on implementation of this Master Plan, Aquatic Maintenance Staff will have the opportunity to participate in the planning of the new facilities and the renovation of those that remain. Their practical knowledge will be helpful to the design team.

8.5.2 Recommendations

- Establish a central Aquatic Maintenance Facility with storage areas to maintain an inventory of backup pumps and supplies (The goal is to have standardized equipment to allow an efficient inventory so that repairs can be made quickly.)
  - Utilize to provide better storage for program equipment (protected during off-season, better inventory control, pre- and post-season testing)
- Synchronize supply inventory control and procurement policies to meet the growing demands of an aging system

- Work towards keeping lines of communication open between Aquatic Operations and Aquatic Maintenance for continuity of maintenance and reduction of emergency closings
- Consider connecting maintenance facility with proposed Premier Indoor Facility
- Include Wi-Fi and internet capabilities for chemical controllers and maintenance work orders, as facilities are improved, for greater efficiencies
- Utilize online applications to improve the efficiency of the large and aging aquatic system through centralized tracking of chemical and maintenance schedules, managing repair orders, inspections, etc.
- Assign full-time staff to pool sites to improve trailing of temporary staff and reduce maintenance burden since these staff can handle chemical and small mechanical issues

8.6 Environmental Sustainability Recommendations and Best Management Practices

With the overall sustainability of the aquatic system as a primary goal of this plan, environmental sustainability is a key component. The use of best management practices enforces and supports environmental sustainability. This plan recommends the following actions:

- Continue to design and operate all new structures to LEED Silver level guidelines as required for all large capital projects for the City
- Utilize variable frequency drive (VFD) pumps for energy efficiency
- Expand use of reclaimed water for irrigation where available
- Monitor water use with separate water meters (from the site) at each pool to respond quickly to any leaks, thus saving water
- Consider use of smart meters for both pools and pool facilities as a whole
- Utilize xeriscaping (landscaping for crowd control and reduce water use)
- Continue to specify grasses and landscape planting better suited for Austin's climate zone
- Locate pools near public transportation for ease of transportation network use (parking issues at some sites)
- Expand collection of rainwater and gray water for use in irrigation
- Reduce paper waste through digital connections, improved by providing Wi-Fi/internet (fiber)
- Utilize improved chemical controllers and automatic fill level controllers
- Ensure that pool backwash flows to 8" or larger sanitary sewer lines rather than into creeks or drainage corridors
  - Continue to incorporate settling basins into the system, if backwash must discharge to a creek
- Continuously research Best Management Practices of other large community Aquatic Divisions to learn from their experiences
- Coordinate Best Management Practices with the Offices of Sustainability, Watershed Protection, etc.
- Provide separate water taps and meters for pools to monitor water use
- Utilize natural light and/or LED fixtures in structures
- Utilize low-flow plumbing fixtures
- Consider mechanical pool covers when a pool is not in use to reduce evaporation
- Decommission pools located within 25- and 100-year floodplains (with the exception of Deep Eddy and Barton Springs)
- Use filtration systems to minimize water use, such as the Neptune Benson Defender Series Regenerative Filters currently used and Bartholomew and Westenfield

- Continue to consider the potential decades of use of a pool during the design process with consideration to ease of maintenance, energy use, and impact on the environment
- Consider use of photovoltaic (PV) systems at larger (non-neighborhood) aquatic facilities to offset cost of operation

8.7 Marketing Recommendations

- Increase the use of social media (Facebook, Twitter, Instagram, etc.) and the marketing budget to allow for expanded marketing efforts (photos, videos, and more) to promote the facilities, programs, and to assist in Lifeguard recruitment
- Create new special events and networking opportunities through aquatic programming targeted at young adults without children to promote aquatic use by this demographic
- Get creative in partnering with fitness centers, physical therapists, hospitals, health insurance providers, fitness non-profit organizations, and clubs for sponsorships, leases, and rentals to increase revenue and promote new or renovated facilities
- Get involved with Corporate Sponsorships for Naming Rights to help to recover capital improvement costs or financially support programming. This collaboration could be done "in house" or through a Public Relations or Advertising Agency

8.8 Potential Increased Revenue Generation Methods

The topic of revenue generation has not been a mandate from the City or PARD leadership during the development of this Master Plan or the preceding Aquatic Assessment, but it would contribute to a more sustainable aquatic system, which has been a strong goal. The following opportunities for revenue generation should be further explored by PARD Staff, PARD leadership, and the City. Ultimately, City Council should consider approval of some of these opportunities, based upon City policies, such as fees, charges, and naming rights.

8.8.1 Fees and Charges

Throughout the three phases of the Aquatic Master Planning process, residents have indicated their love for free Neighborhood Pools but also indicated a willingness to pay a fee if required or needed. The proposed system provides a variety of aquatic opportunities with the Neighborhood Pools remaining free and varying fees for the Community and Regional pools. A process should be developed to waive fees at these new facilities for those with financial needs.

The current fee rates at Municipal Pools are $1.00 for a child (age 11 and under), $2 for a junior (12-17), $3 for an adult, and $1 for a senior (age 62 and over), and non-residents pay $1 more within each age category. (Children under 1 and residents 80 or over are free.) Deep Eddy and Barton Springs also have different fees for residents and non-residents. With the increased features, amenities, and requirement for additional operations costs at the larger Regional Aquatic Centers, these fees could be raised.

The current fee structure for Municipal Pools is appropriate for the Community Pools. Neighborhood Pools should remain free, but with the new requirement for an attendant at the gate at all pools, the establishment of a fee is more feasible and would not increase staffing costs. The current Season Swim Pass rates are more comparable to other communities.

Improved facilities with more lanes would also likely lead to an increase of group rentals, birthday parties, competitive events, and club team rentals. PARD could also consider charging for usage of pools in winter or offering season pass promotional rates to increase membership.

8.8.2 Concessions

The development of Bartholomew Pool without a concession area is a lost opportunity. With the increased features and family-friendly design, visitors will stay longer at pools, especially if food and drink is available.

All Regional Aquatic Centers (and potentially Community Pools) should have concession offerings with an appropriately sized shaded area for eating to avoid food and drink near the pools. These concessions could be provided by a concessionaire or by the City. With the number of concession stands in the new system, PARD could operate concessions at a substantial profit.

8.8.3 Naming Rights and Sponsorships

The quality of the new facilities offers an attractive opportunity for naming rights and sponsorships. Events and programs could also be sponsored. To effectively take advantage of these opportunities, the PARD Staff must include a person dedicated to this effort.

8.8.4 Partnerships

As discussed in the Use Agreements and Partnerships section of this chapter, there are opportunities to partner with health care providers, commercial entities, educational institutions, and others in the programming, rentals, and use of facilities.

8.8.5 Increased Programming

The upgraded facilities will offer an opportunity to expand program offerings and, thereby, increase revenue and help retain high performing instructors/programs staff/coaches.

8.8.6 Revenues to PARD

Currently, all aquatic revenue goes to the City General Fund, and funds are allocated annually to the Parks and Recreation Department budget. PARD would have more incentive to be proactive about increasing revenues if revenue generated by aquatic facilities were returned directly to PARD Aquatic Division.

8.9 Probable Cost Projections (Capital, Revenues, and Operations)

This section includes projections for the future of the potential aquatic system described earlier in this chapter. While capital requirements were described in Section 8.2, staffing, revenues, operations costs, and maintenance requirements are outlined below. This information is essential for the PARD Aquatic Division to prepare and plan for the future of aquatic opportunities in Austin.

8.9.1 Capital Cost Projections

Subsection 8.2.4 of this chapter identified capital costs in the range of $152 to $193 million, depending on how many of the current Neighborhood Pools are kept in operation.

8.9.2 Staffing Projections

An analysis of the pool staffing requirements for proposed system identified in section 8.2 indicates a need for a total of 980 staff (2016 staff included 768 total staff), including lifeguards, pool managers, attendants, etc., if fully implemented. This projection also assumes that some of the pools will be decommissioned. The newer pools at Westenfield and Bartholomew that recently opened, and the Shipe and Govalle Pools, which will be developed in the Fall of 2017 for the 2018 season opening, require more staff than the older rectangular pools, due to number of waterbodies, shape of pools, and features. The new indoor and outdoor facilities will also add to this total.

The recent Austin Public Health Department mandate to have attendants at the entrance to each pool also adds to the increased staff requirements. This dramatic increase further emphasizes the need to continue and boost the efforts toward increased recruitment, retention, and training as outlined in this plan. The indoor facilities will also provide an increased opportunity for training and recruitment through increased programming and partnerships, such as the SwimATX program.

8.9.3 Revenues

Increased income generation from the proposed system has great potential from the categories below.

- Concessions - At full build-out, income from concessions at the Community and Regional pools would be expected to generate net revenue of approximately $350,000 to $400,000 per year.
- Admission Fees - PARD has experienced income from attendance at the seven Municipal Pools (including Deep Eddy) in the range of $550,000 to $700,000 per year in recent years (not including Barton Springs). The proposed system includes five Regional Aquatic Centers (including Deep Eddy) and 11 Community Pools. If all of these charge fees, it would be expected to increase revenue from admission fees alone to a range of $1.5 to $2 million per year.
- Indoor Facilities – The indoor pools would generate revenues from increased programs, pool and lane rentals, swim meets, concessions, and other sources. In addition, similar indoor facilities throughout the country have benefited from both capital and operating funds from hotel taxes, tourism funds, sponsorships, naming rights, and partnerships. A feasibility study will better refine capital cost projections and likely operating expenditures/revenues.
- Programming – The outdoor pools may be more attractive for lessons and other aquatic programs, but a significant increase in the numbers of people utilizing the programs would not be anticipated, except as a result of continued growth of the population of Austin, resulting in a larger pool of potential program participants. Overall, increases from this source of revenue will be more related to increases in marketing budgets and population increases than other factors; however, continued program quality improvements associated with retention of high performing staff may also play a role.

8.9.4 Operations Costs

Once the recommendations are fully implemented, PARD should experience lower costs for operation per pool due to the newer condition of facilities, more energy efficient mechanical systems, reduced maintenance repairs, and the benefits of a LEED Certified and more environmentally sustainable system. Staffing costs will be higher due to the increased number of staff (primarily Lifeguards) required to operate the system as mentioned earlier in this chapter.

PARD is in the process of expanding the detail of its reporting of operation costs to gain a more exact cost of operations per pool, especially at its newer facilities, which will become the baseline to estimate future operations costs as facilities are upgraded. This improved record keeping was also recommended in the Sustainability discussion in Chapter 6.

8.9.5 Maintenance Repairs

Continuous maintenance repairs, both scheduled (known) and unscheduled (unknown), will remain constant until all of the pools are upgraded. The process outlined in Chapter 6 should be followed to examine the Sustainability of a pool going forward. In addition, PARD should not spend more than $200,000 on a pool to keep it in operation unless the repairs will keep the pool operating for another 3-5 years and/or the repairs will be incorporated into the pool upgrade process.

A review of the repairs made between 2009 and 2016 and those scheduled for 2017 (see Table 6.3 in Chapter 6) identified 12 pools that expended over $100,000 and only four that expended over $200,000 in that nine-year period. In several cases the repairs have extended the life of the pools significantly. Therefore, the amount of $200,000 over a ten-year period appears to be a reasonable threshold for limiting repairs that will keep a pool open but not necessarily contribute to the long-term recommendation for the pool.

8.10 Potential Funding Scenarios and Fiscal Expenditures Priorities

If the City were to implement all of the capital facility improvements recommended in this plan, it would need at least $8 to $10 million per year over the next 20 years, plus the cost of inflation for improvement in future years. These capital improvements must be weighed against the other capital improvement needs of the City. A goal of this plan is to provide the City with the tools necessary to develop a more sustainable and

equitable system of aquatic facilities and programs. PARD and the City should use this plan to develop a capital improvement plan that works with the other fiscal expenditure priorities of the City.

PARD should prioritize the following:

- Address the critical pools that are in danger of failing using the sustainability process and in conjunction with the Site Suitability Ranking
- Be proactive to make improvements that are geographically located so as to maintain quality facilities in each area of the City, in case other pools in the area fail (For example, upgrade Montopolis in order to make sure that the area has an operational pool considering that Civitan is in critical condition and a good candidate for decommissioning due to its low Site Suitability Ranking and close proximity to Montopolis.)
- Place a priority on the development of at least one of the indoor facilities to assist in the Lifeguard recruitment and training process as well as meeting a growing need for year-round programming and lap swimming
  - Conduct a feasibility study to further determine and evaluate indoor aquatic needs of Austin residents, to better project the requisite capital and operating costs, and to estimate potential revenue from various sources
- Develop new pools based on the population growth in the areas indicated, with Colony Park Pool developed first as other park facilities are developed in this park

Table 8.1 indicates the timeframe recommended for each capital improvement.

8.11 Potential Lifeguard Recruitment and Retention Methods

The Aquatic Operations section of Chapter 2, Planning Context, outlined a variety of conditions providing challenges to the City for Lifeguard recruitment, training, and retention. The ensuing section summarizes potential recommendations to address these challenges framed within a series of subtopics. The PARD Aquatic Division has made strong strides toward improving the hiring process and continues to make improvements within the limitations of the City hiring practices.

8.11.1 Working Conditions

- Improve staff areas when facilities are selected for improvement or replacement
- Provide Support Staff at all facilities to meet Health Department requirements and serve as an incentive for Lifeguard recruitment at smaller, less popular locations

8.11.2 Pay Scale vs. Duties

- Provide Support Staff to assist Lifeguards in these additional tasks (janitorial, customer service)
- Consider tuition reimbursement or scholarship aid for Lifeguards who successfully earn certification and work for a defined period of time (already offer free recertification and a max fee for $40 for course)
- Reduce janitorial obligations for the Lifeguards to improve the image of a professional Lifeguard for improved recruitment and retention efforts

8.11.3 Transportation

- Consider financial assistance, such as travel vouchers or providing daily transportation, due to the size of the City and long commutes (currently receive free bus passes)
- Focus recruitment efforts, affordable or subsidized training, and employment incentives in neighborhoods where Lifeguard applicants have been limited

8.11.4 Scheduling

- Incorporate online scheduling and payroll programs for greater efficiency and accuracy

8.11.5 Training

- Consider an indoor facility to increase In-Service and Pre-Season Training opportunities
- Create online videos and tutorials based on the Aquatic Staff Manual for increased training opportunities
- Consider incorporating shallow water training to allow site specific training and increasing the number of lifeguards

8.11.6 Hiring Process

- Automate the time and attendance process as well as the application process for greater efficiencies and accuracy

8.11.7 Staffing

Opportunities

- Head Lifeguards have consistently led to higher scores on audits.
- The possible reduction in the number of aquatic facilities may make recruitment, retention, and training more successful.
- Affordable and accessible technology may provide assistance with scheduling and payroll. This type of software application would make staff time more efficient, freeing up their time for more vital tasks and serve as an incentive for employees (will require staff to dedicate time for implementation, which should have a phased approach).
- Communicating information with a large and seasonal staff is nearly impossible but imperative. Communication does occur at In-Service Trainings, but a more efficient method would be the use of technology or social networking platforms to disseminated information.
- The greatest opportunity for improvement is the obvious support of the Aquatic program by the residents of Austin and the City's aquatic legacy. Turning this support into advocacy for change and funding is the true opportunity.
- The result of SWIM512 coupled with the support of the community is the greatest opportunity to recharge aquatic opportunities in Austin. The Aquatic Management Staff must be given the opportunity to continue to be involved and their input respected throughout the implementation process.
- Each new or renovated facility should be equipped with Wi-Fi/internet (fiber) capability in order to take advantage of online attendance programs and water chemistry control systems available now and new technology in the future.

Recommendations

- Utilize the example set by SwimATX for future collaborative ventures and partnerships to assist the Aquatic Division meet their staffing goals
- Hire more Full-Time Head Lifeguards for a higher level of professionalism, ongoing coaching/training of temporary staff, better program supervision, and assistance with basic maintenance duties
- Utilize more attractive and "staff friendly" facilities as an incentive for recruitment
- Employ programs that can be accessed from home computers and cell phones to communicate with staff and document receipt of information
  - Carefully evaluate potential software to select an application that meets the needs of Austin's large and complex aquatic system
- Turn public support into an advocacy for change and funding
- Incorporate Wi-Fi/internet (fiber) at each facility and utilize technology as it becomes available to take advantage of online attendance programs, water chemistry control systems, and more